

BULLETIN No. 29

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 N this bulletin we welcome to our columns two of our members on the Pacific Coast, Messrs. S. F. Truitt and G. H. Kneiss. The contributions of both of these gentlemen are of value to our members as there is much of interest in the early railroad days of California that has yet to be written. Mr. Truitt has presented a very interesting account of the growth of the present Northwestern Pacific R. R. and Mr. Kneiss has given us a vivid picture of the Sacramento Valley R. R. in the days of the "gold rush".

This time Mr. Curran discusses the ten wheel type of locomotive on the Northern Pacific R. R. His first contribution in Bulletin No. 28 aroused no little interest with our members. We hope that this contribution and the ones to follow will be equally stimulating.

The next group of locomotives in the Boston & Maine series came from the Northern (N. H.) R. R. Through the kindness of Mr. Inglis Stuart, the writer has been able to greatly enrich the original list of Mr. Yeaton's. Mr. Stuart was an interesting eye witness to all that transpired at White River Jet., Vermont, in the days when the Central Vermont engines brought the trains to West Lebanon and the Northern (N. H.) engines then took them up to Canaan and thence to Concord, N. H. His comments on the roster of Northern R. R. engines will be valued and his remarks on the late Charles C. Rowell and the other men connected with that road will be appreciated.

Those of our members who enjoyed the contributions written by Mr. John Loye will be sorry to learn that his friend, Herbert A. Pangborn of Rockland, Ontario, passed away on May 28th last in his 89th year.

Locomotive Lithographs

AGAIN we are calling the attention of our members to the set of four colored prints of early locomotives that this Society has on sale at a special price of \$5.00. This set includes "Snow-bound", a Crampton type of locomotive used on the Camden & Amboy R. R. in 1850; the "Pioneer" on the Cumberland Valley R. R., built by Seth Wilmarth of Boston, in 1851; an American Express train of the '70's drawn by a Rogers locomotive and through the kindness of the Delaware & Hudson Co., we are able to include the "Stourbridge Lion", imported from England in 1829. The "Pioneer" is 7x11 in size while the other three are 8½x10½ inches. These are beautiful reproductions from the brush of the well known artist and one of our members—Mr. A. Sheldon Pennoyer. Comments on the work and talent of Mr. Pennoyer were expressed in Bulletin No. 28 and need not be repeated here. The price of this set is \$5.00 and when these sets are gone, there will be none to replace them. These sets should be ordered from Chas. E. Fisher, 6 Orkney Road, Brookline, Mass.

Another artist on our membership roster is Mr. Otto Kuhler. This spring the Schwartz Galleries, 507 Madison Ave., New York, N. Y., published a set of lithographs in full colors of five locomotives. The set includes the "De Witt Clinton", "Stevens Crampton Engine", "Winans' Camels", the "Pioneer" on the Cumberland Valley and the famous Civil War engine "General" of the Western & Atlantic Ry. Mr. Kuhler grew up with locomotives. The series is technically correct and the colorings are beautiful. The price of this set is \$48.00 less a 10% discount which will be granted to our members. Mr. Kuhler has other material for sale among them his "Ladies in Waiting", 5½x7 for 50c. Mr. Kuhler, 921 Graybar Bldg., New York City will be glad to supply our members with such details as they need and we can cheerfully recommend his work to our members.

Franz Anton Von Gerstner

THROUGH the kindness of Herr Gaiser, one of our members, we are able to make a correction to the statement that appeared in our Bulletin No. 22. He writes: "In Bulletin 22, page 61, it is said that nothing has been heard of the papers of Mr. Franz Anton von Gerstner who died in Philadelphia on April 12, 1840. On the contrary these papers have been published by his secretary, Mr. Lazarus Klein in book form under the title—*Über die innere Communication der Vereinigten Staaten in Nordamerika von Ritter v. Gerstner*. Herr Gaiser states that von Gerstner was not a Czech as Mr. Warren states in his book on page 323. Despite the Russian medal he was a German or, if you will, an Austrian of German race."

Christmas Cards

WE are again calling the attention of our members to the announcement of some very interesting Christmas cards depicting early locomotives or railway scenes. Since the announcement appeared in Bulletin No. 28 three more cards, all of Currier & Ives subjects have been added to the assortment. They are "The Great West", "Through to the Pacific" and "The Route to California". They are the large size and sell for 15c each. All of the samples submitted for inspection are beautifully done in six or more colors and the execution is of the best. After you have ordered them you probably won't want to send them away. Yet here is your chance to send a Christmas Greeting to a brother locomotive fan or member. You should order your cards before December first from

THE MAJORIE KNAPP BOOK SHOP
110 Mount Vernon Street
Boston, Massachusetts

Our Exchange Department



FEW years ago this Society, at the request of several of our members, started this department. Two albums were procured and these have made the rounds to such of our members who signified an interest in this sort of a photographic exchange.

By dint of hard work and much effort, Mr. Harry Cotterell, Sr. has built up an interesting department. There are some things however that should be brought to the attention of our members.

The success of this exchange rests solely upon our members. The quality of the prints that you place in the exchange album and the promptness with which you send the album on to the next member is all that you have to do to make this exchange a success. Not long ago one member wished the exchange albums sent to him and when one was enroute to his address, our member set out on a trip around the world. Another spent a summer abroad while an album waited his pleasure until he returned. Another member kept one all summer in his winter residence and only after many letters had passed was it finally located. We have no desire to hinder our members from making such pleasure journeys or taking such vacations as they wish, but it does seem, in consideration for the other members, that they would take some measures at least to prevent anything like this happening. They could at least send a card to the Exchange Manager. One week is too long to keep one of these albums—three days ought to be long enough.

In the matter of pictures, we are only interested in your own work, not in what some one else has sent you and you want to get rid of. It does not seem too much to state that the Golden Rule should

apply here as well as elsewhere. If the quality of prints that you receive in the exchange does not give you an idea of what you should place in the albums, then send any that you are in doubt about to the Exchange Manager. A print of a locomotive with the headlight and pilot chopped off, the tender cut in two and perhaps the lower part of the drivers or the smokestack cut off, does not possess a whole lot of value. Certainly it does not compare with a print, neatly centered and including the locomotive and tender.

To those who do participate in this exchange, let us see if we cannot get these books around a little more promptly and include some material that we are proud to admit ownership.

Railway and Locomotive Historical Society's Negatives

In addition to the material listed in our previous bulletins, prints from the following negatives are available to our members.

Neg. No.

- 100 Boston & Albany R. R. Nos. 83 and 100 at Springfield, Mass. No. 83 built by B & A in 1880 and the No. 100 in 1883. Size 5x7.
- 101 Boston & Maine "Massachusetts", Hinkley & Drury 1846. Size 5x7.
- 102 Old Shops at Hartford, Ct. showing four old locomotives. Size 8x10.
- 103 Illinois Central No. 1001, 2-6-2 type, Rogers 1902. Size 8x10.
- 104 Baltimore & Ohio R. R. No. 621 and train. Size 8x10.
- 105 Wheeling & Lake Erie No. 2203—4-4-0 type. Size 5x7.
- 106 Wheeling & Lake Erie No. 2303—4-4-2 type. Size 5x7.
- 107 Wheeling & Lake Erie No. 2308—4-4-0 type. Size 5x7.
- 1481 Housatonic R. R. No. 8, 4-4-0 Rogers 1869. Size 5x7.
- 1509 Boston & Maine R. R. "North Star", Manchester, 1872. Size 5x7.

Prints of the above may be procured from J. W. Merrill, 40 Broad St., Boston, Mass. The price of 5x7 prints is 35c and the 8x10 prints are 75c each to our members.

One of our members is anxious to procure a copy of the book—"The Early Motive Power of the Baltimore & Ohio Railroad" by the late J. Snowden Bell. If any of our members have a spare copy or know where one can be procured will you please advise the Editor together with the price.

The Locomotives of the Boston & Maine Railroad

By CHAS. E. FISHER

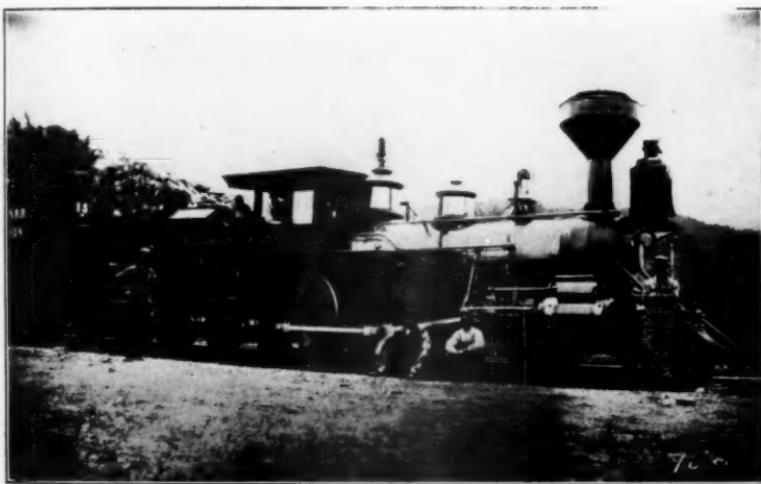
 N Bulletin No. 28 we listed at no little length the engines received from the Eastern Railroad. The next group of locomotives in the old Boston & Maine series came from the Northern (New Hampshire) R. R., but before these locomotives were included in the series we find several in Mr. Yeaton's list that were ordered by the Boston & Maine R. R., as follows:

246	J. W. Hildreth	Concord R R	—	16x24"	4-4-0	Formerly Concord R # 19. Sold to Poultner & Co.
247	Wannalancet	Mason	#	751	1887 17x24"	4-4-0 Renumbered 614
248	Gen'l Reynolds	Rhode Island	#	1919	1888 17x24"	4-4-0 Renumbered 625
249	Gen'l Sedgwick	Portland	#	556	1887 17x24"	4-4-0 Scrap B & M 1966
250	Daniel Webster	Rhode Island	#	1930	1888 17x24"	4-4-0 Renumbered 730
251	John C. Calhoun	Rhode Island	#	1931	1888 17x24"	4-4-0 Renumbered 731
252	Henry Clay	Rhode Island	#	1932	1888 17x24"	4-4-0 Renumbered 732
253	John P. Hale	Hinkley	—	1888	17x24"	4-4-0 Renumbered 733
254	Meredith	Hinkley	—	1888	17x24"	4-6-0 Scrap B & M 1909
255	Oakland	Hinkley	—	1888	17x24"	4-4-0 Renumbered 734
256	Northfield	Manchester	—	1888	18x24"	4-6-0 Renumbered 1901
257	Woodsville	Manchester	—	1888	18x24"	4-6-0 Renumbered 1902
258	Boscawen	Manchester	—	1888	18x24"	4-6-0 Renumbered 1903
259	Waterloo	Manchester	—	1888	18x24"	4-6-0 Renumbered 1904
260	Charlestowm	Portland	#	594	1888 17x24"	4-4-0 Renumbered 721
261	Georgetown	Portland	#	595	1888 18x24"	4-4-0 Renumbered 854
262	Groveland	Portland	#	596	1888 18x24"	4-4-0 Renumbered 855
263	Courier	Manchester	#	1396	1888 16x24"	0-4-0 Renumbered 79
264	Greenwood	Manchester	—	1888	18x24"	0-4-0 Renumbered 80
265	Gen'l Scott	Portland	#	597	1888 18x24"	4-4-0 Renumbered 856
266	Gen'l Jackson	Portland	#	598	1888 18x24"	4-4-0 Renumbered 857
267	Baldwin	Portland	#	591	1888 17x24"	4-4-0 Renumbered 722
268	Whistler	Portland	#	592	1888 17x24"	4-4-0 Renumbered 723
269	Menotomy	Portland	#	593	1888 17x24"	4-4-0 Renumbered 724
270	Rutland	Manchester	—	1889	19x26"	4-6-0 Renumbered 1950
271	Jefferson	Manchester	—	1889	19x26"	4-6-0 Renumbered 1951
272	Connecticut	Manchester	—	1889	19x26"	4-6-0 Renumbered 1952
273	Gilbertville	Manchester	—	1889	19x26"	4-6-0 Renumbered 1953
274	Belchertown	Manchester	—	1889	19x26"	4-6-0 Renumbered 1954
275	Northampton	Manchester	—	1889	19x26"	4-6-0 Renumbered 443 in old series.

The last six engines were originally built for the Atchison, Topeka & Santa Fe R. R. The No. 275 above was already occupied by Northern R. R. No. 1 so that engine was renumbered 443 in the old series.

NORTHERN (N. H.) R. R.

The early reports of this road do not yield us much information relative to the early engines on the road. The Report of 1847 states that the engines "Contoocook" and "Wanolanset" (note the spelling) are "already on the road". On "Wednesday, November 17, 1847, passenger cars ran for the first time to Lebanon, Centre Village", so states the Report of 1848.



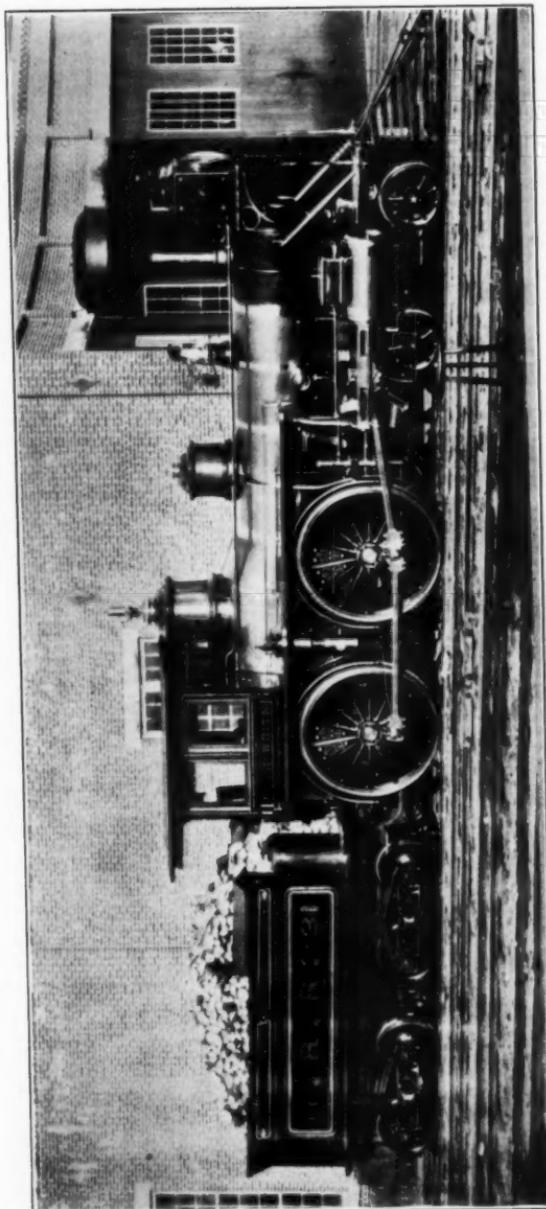
Northern R. R. "Lebanon." Northern R. R., 1868.

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Northern R. R. "Nath'l White." Northern R. R., 1873.



In the Report of the Investigating Committee of the Northern R. R. to the Stockholders, dated May, 1850, the following engines are listed:

Name	Weight	No. of Wheels	Cost
Etna	47400	8	\$8150.00
Hampshire	52500	8	8500.00
Grafton	42850	8	7850.00
Contoocook	30000	8	6778.00
Shaker	45300	8	7550.00
Lebanon	45300	8	7550.00
Blackwater	45700	8	7550.00
Pemigewasset	45300	8	7550.00
Franklin	39800	8	7350.00
Mascoma	39800	8	7350.00
Bristol	32000	8	7000.00
Jehu	22000	6	1500.00 Now unfit for use.

Further examination in the reports and we find that the "Gen'l Pierce" and the "Daniel Webster" were purchased in 1852 and that the "Hanover" was purchased in 1853.

The reports state that the road was leased to the Boston & Lowell R. R. on June 18, 1884. As the result of this lease the Northern R. R. locomotives were numbered in the Boston & Lowell series and since we are considering this list from the standpoint of the Boston & Maine R. R., and to avoid confusion, that series of numbers will be omitted here. In March, 1887, the lease was annulled but on October 1, 1887, the road was leased to the Boston & Maine R. R., for 99 years and in 1890 the lease was transferred to the Boston & Lowell R. R.

NORTHERN (N. H.) R. R. LOCOMOTIVES.

In presenting this list of locomotives, I have departed somewhat from Mr. Yeaton's original list because, through the kindness of Messrs. Inglis Stuart and G. F. Starbuck, I have found it necessary to make some revisions over the original. Mr. Stuart, as a Saturday afternoon eye witness at White River Jet. and West Lebanon, together with his acquaintance of many of the Northern R. R. locomotive engineers has given us the benefit of his knowledge with some interesting comments which will follow this list of locomotives. (In the matter of numbering, the Northern R. R. and Boston & Maine numbering is shown herewith.)

Jehu	Dunham & Browning	1838	11x16"	4-2-0	From B & L R R
Pilgrim	Hinkley & Drury			4-2-0	See Comments
1 Contoocook	Hinkley & Drury	# 76 1846	14x18"	4-4-0	Renamed
Mrs. Dustan					Scrap N R R
Contoocook	Northern R. R.	1875	16x24"	4-4-0	Scrap B & M 1903
5 Contoocook	Hinkley & Drury	# 88 1847	14x18"	4-4-0	Renamed
2 Wannalancet					Rebuilt
Bristol	Northern R. R.	1873	14x22"	4-4-0	Scrap B & M 1890
3 Franklin	Hinkley & Drury	# 111 1847	15x20"	4-4-0	Scrap N R R
4 Pemigewasset	Hinkley & Drury	# 110 1847	14x18"	4-4-0	Renamed
Pemige					Scrap N R R 1882
7 Pemige	Northern R. R.	1884	15x20"	0-4-0	Scrap B & M 1902
5 Shaker	Hinkley & Drury	# 127 1847	15x20"	4-4-0	Scrap N R R 1879

278	Shaker	Northern R. R.	1880	15x20"	0-4-0	Scrap	B & M 190	Enf	
6	Blackwater	Hinkley & Drury	# 131	1847	15x20"	4-4-0	Scrap	N R R '75	Nath
279	Blackwater	Northern R. R.		'75 ?	14x24"	4-4-0	Scrap	B & M 180	Nath
7	Grafton	Hinkley & Drury	# 134	1847	15x18"	4-4-0	Scrap	B & L 180	A.M.
8	Lebanon	Hinkley & Drury	# 141	1847	15x20"	4-4-0	Rebuilt		A.M.
	Lebanon	Northern R. R.		1868	14x24"	4-4-0	Renamed by B &		A.M.
280	Grafton				4-4-0	Scrap	B & M 180		
9	Mascomy	Hinkley & Drury	# 120	1847	14x18"	4-4-0	Sold after 1872		Mr
9	Newport	Souther		1854	?	4-4-0	Scrap	B & L 180	low
10	Hampshire	Hinkley & Drury	# 143	1848	16x20"	4-6-0	Scrap	N R R 187	JEL
10	Hampshire	Northern R. R.		1880	16 1/4x24"	4-4-0	Renamed by B &		
281	Pennacook				4-4-0	Scrap	B & M 180		
11	Etna	Amoskeag	# 1	1849	16x18"	4-4-0	Scrap	N R R 187	
11	Franklin	Northern R. R.		1881	17 1/4x24"	2-6-0	Scrap	B & M 180	
282	Franklin				2-6-0	Scrap	B & M 180		
12	Wm. Amory	Amoskeag	# 7	1850	16x20"	4-4-0	Scrap	N R R 187	
12	Wm. Amory	Manchester		1877	15x24"	4-4-0	Scrap	B & M 180	
283	Wm. Amory				4-4-0	Scrap	B & M 180		
13	Northern	Amoskeag	# 15	1851	15x24"	4-4-0	Scrap	N R R 187	
13	Northern	Northern R. R.		1877	17x24"	4-4-0	Scrap	B & M 190	
284	Northern				4-4-0	Scrap	B & M 190		
14	Gen'l Pierce	Amoskeag	# 52	1852	15x20"	4-4-0	Rebuilt		PIN
		Northern R. R.		1867	15x22"	4-4-0			
					4-4-0	Scrap	B & M 180		
285	Gen'l Pierce	Amoskeag	# 76	1853	15x24"	4-6-0	Exploded—1854		
15	Daniel Webster	Northern R. R.					Scrap	B & L 180	
	Rebuilt by								
16	Hanover	Souther		1851	?	4-4-0	Scrap	N R R 180	
17	Nesmith	Northern R. R.		1855	15x22"	4-4-0	Rebuilt by		
		Northern R. R.		1870	4-4-0				
287	G. W. Nesmith				4-4-0	Scrap	B & M 180		
18	Crombie	Northern R. R.		1855	?	4-4-0	Scrap	N R R 180	
18	Crombie	Northern R. R.		1870	16 1/4x24"	4-4-0	Scrap	B & M 180	
288	John Crombie				4-4-0	Scrap	B & M 180		
19	Onslow Stearns	Manchester	# 14	1855	16x24"	4-4-0	Rebuilt by		
		Northern R. R.			16 1/4x24"	4-4-0			
289	Onslow Stearns				4-4-0	Scrap	B & M 180		
20	Claremont	Amoskeag	# 8	1850	16x20"	4-4-0	Exploded		
20	No Name	Northern R. R.		1856	16x24"	4-4-0	Scrap	N R R 180	
20	Claremont	Northern R. R.		1876	16x24"	4-4-0	Scrap	B & M 180	
290	Claremont				4-4-0	Scrap	B & M 180		
21	Bradford	Souther		1850	?	4-4-0	Scrap	B & L 180	
22	Waterloo (renamed ? W.M.Parker)			?	?	?	Rebuilt as		
	Wm. M. Parker	Northern R. R.		1879	15x22"	4-4-0	Scrap	B & M 180	
23	Ascutney	Hinkley & Drury	# 223	1849	15x20"	4-4-0	Rebuilt as		
	Kearsarge	Northern R. R.			4-4-0	Scrap	N R R		
23	Kearsarge	Hinkley		1878	16x24"	4-4-0	Renamed		
291	Warner				4-4-0	Scrap	B & M 190		
24	G. A. Kettell	Manchester	# 26	1856	15x22"	4-4-0	Rebuilt		CON
		Northern R. R.		1884					
292	G. A. Kettell				4-4-0	Scrap	B & M 190		WA
25	Sunapee	Souther		1853	?	4-4-0	Scrap	N R R	
25	Pennichuck	Taunton L. W.	# 219	1857	15x20"	4-4-0	From N & L R R		
293	Peterboro				4-4-0	Scrap	B & M 180		
26	Central	Hinkley & Drury	# 258	1850	15x18"	4-4-0	Rebuilt by		PE
		Northern R. R.		1878	15x24"	4-4-0			MA
294	Canaan				4-4-0	Scrap	B & M 180		
27	C. W. Clark	Northern R. R.		1870	16x24"	4-4-0			BL
295	C. W. Clark				4-4-0	Sold	B & M 180		
28	Col. Hosley	Northern R. R.		1872	17x24"	2-6-0			
296	Col. Hosley	Northern R. R.		1872	16x24"	2-6-0			
29	James Sedgeley	Northern R. R.		1872	16x24"	2-6-0			
297	James Sedgeley	Northern R. R.		1872	2-6-0	Scrap	B & M 180		
30	Mascoma	Northern R. R.		1872	16x24"	4-4-0	Renamed by B &		

I	190	Enfield				4-4-0	Scrap B & M	1898
I	'75	Nath'l White	Northern R. R.	1873	16x24"	4-4-0		
I	189	Nath'l White				4-4-0	Scrap B & M	1898
I	186	A. M. Shaw	Northern R. R.	1874	17 1/4 x24"	2-6-0		
		A. M. Shaw				2-6-0	Scrap B & M	1903

In commenting on the roster of Northern (N. H.) R. R. engines, Mr. Inglis Stuart brought out some interesting facts which are as follows:

JEHU: Built by Dunham & Browning at their Machine Shop, North Moore Street, New York City in 1838 for the Nashua & Lowell R. R. The late Solon Fiske of Bloomington, Illinois, informed me that he used to see the "Jehu" switching at Lowell in 1846. In May, 1847, it was sold to the Northern R. R., and constructed the grade. A few years later, when he became an Engineer on that road, he found it still hauling a gravel train. About 1854 it was set up in the West Lebanon Shop to furnish power where it stood for many years. My friend, Simon R. Clark, used to fire the "Jehu" while it still was in road service. It was of the 4-2-0 type with 11x16" cylinders.

PILGRIM: A single driver, Hinkley & Drury, switching at Concord about 1859-60. It was said to have previously been on the Sullivan Railroad. If so, it must have been the one seen by Henry E. Day in July, 1854 for he told me that he saw a single driver Hinkley named "Charlestown". From his diary he found the date—July 8, 1854. In Concord it was a tradition that the locomotive came from the Sullivan R. R. The references to the Sullivan R. R. in a History of that County, which the late Ezra R. Russell cited to me, shows that the first locomotive was hauled by oxen from a point further south on the Connecticut River to Charlestown, New Hampshire, just above Bellows Falls and used to construct the road.

There are very few early Hinkley & Drury engines which correspond to the "Pilgrim" and it may be suspected that it came from the Fitchburg R. R. and that the name was changed to "Charlestown" by the Sullivan R. R. Mr. Starbuck states that of the three single-driver locomotives owned by the Fitchburg R. R., he is quite sure the "Tudor" and "Bunker Hill" were not sold. This leaves the "William Penn" as the possible engine that was sold to the Sullivan R. R. This engine probably came from the Boston & Worcester R. R., built by Baldwin in 1836. It was replaced by a Hinkley & Drury engine of the same name in 1847 and the original "William Penn" was either taken in part payment for the new engine by Hinkley & Drury, rebuilt by them and sold to the Fitchburg or else purchased by the Fitchburg from the Boston & Worcester and rebuilt by Hinkley & Drury.

CONTOOCOOK: Named after the Contoocook River. Was re-named "Mrs. Dustan" about 1873.

WANNALANCET: Named after Mt. Wannalancet. This was soon changed to "Bristol" and ran on the Bristol Branch. The late Charles H. Brown, born at Hill, on that branch, several times remarked that the "Bristol" was the first locomotive that he ever saw.

PEMIGEWASSETT: The name was shortened to "Pemigee" as early as 1872. MASCOMY: H & D #120 disappeared before 1872 and one named "Mascoma", after the lake of that name, took its place about 1873.

BLACKWATER: Named after the Blackwater River. In the autumn of

BLACKWATER: Named after the Blackwater River. In the autumn of 1872, this engine stood in the West Lebanon Shop out of service. Presumably it was intended for sale as the name and road title had been removed and the engine was painted black. However, it was again placed in service by Mr. Lauder, M. M., in 1873, after some repair. It closely resembled the "Franklin" in 1872.

GRAFTON: Named for Grafton County. A fine engine with a long career mostly on the Concord & Claremont Division. This was the first locomotive to which Charles C. Rowell was assigned in 1859 when promoted to Engineer.

NEWPORT: Originally on the Concord & Claremont R. R.

WILLIAM AMORY: In 1872 this engine was handling through passenger trains between West Lebanon and Concord. Although old, it was a speedy and serviceable locomotive with 70" drivers. Named after a Director of the Northern R. R.

HANOVER: Built for or acquired second-hand by Balch, a railroad contractor, to be used in the construction of the Great Western Ry. (Canada). Ezra R. Russell reports it to have been in service on the Central Vermont Ry. The engine does not appear on any of the rosters of that road but it might have been rented to them. An explosion (firebox) caused the engine to be rebuilt at the Latham Works and the Northern R. R. acquired it. The engine was assigned to Simon R. Clark and was running as late as 1872. The engine had broad running boards and railings.

G. W. NESMITH: Thought to be one of the engines started by John P. Laird at Latham's Works and completed in the Northern Shops. George W. Nesmith was a very prominent man—Senator, Governor, etc.

CLAREMONT: This Amoskeag engine was originally built for the Concord & Claremont R. R. and later came to the Northern R. R. It exploded and the Northern R. R. used some of the "remains" in building "No. 20". No name was assigned to this "No. 20" which was painted a dull black on every surface. Owing to this feature some of the railroad men termed it "Nigger". Mr. Rowell is under the impression that some of the "remains" were used on other engines. In spite of this, "No. 20" was one of the best locomotives on the road and carried no name as late as 1872.

BRADFORD: It was stated by the late Truman E. Straw that the "Bradford" was the "Reindeer". Simon R. Clark and Mr. Rowell told me to the contrary. Mr. Clark came to the Northern in 1848 and Mr. Rowell in 1855 while Mr. Straw was several years later.

G. A. KETTELL: The Manchester Locomotive Works built one of this name and it was damaged at East Andover, N. H. on its trial trip. The Northern R. R. refused to accept it. After repairs the engine was sold, under this name, to the Chicago, Burlington & Quincy R. R. and the second one of this name came to the Northern R. R. Charles H. Brown, who witnessed the trial trip, gave me the account.

SUNAPEE: This was a Concord & Claremont R. R. locomotive and was probably the locomotive so widely known as the "Reindeer". I showed a print of the "Reindeer" to Mr. Clark and he said it was the "Sunapee" when he ran it on the New Hampshire Central Division from Manchester to Henniker in 1854 just previous to his leaving the Northern R. R. Cyrus Melvin of Bradford, who was connected with the Concord & Claremont R. R. in the fifties, told me the "Sunapee" was damaged slightly when the shed at Bradford burned and he thought that somebody as a joke, painted the name "Reindeer" on the board above the drivers. He stated the "Sunapee" was the only name it carried. Mr. Rowell told me that he had asked the late John Perley Mason three years ago about this locomotive. Mr. Mason was in the Northern's Shops at Concord from 1854 to 1862 when he became Assistant Master Mechanic of the Boston, Hartford & Erie R. R. He replied to Mr. Rowell, that no "Reindeer" was on the Northern during his time nor had he ever heard of any earlier one so called on the Northern.

CENTRAL: Built for the New Hampshire Central R. R. It carried this name on the Northern R. R. in 1872. Mr. Clark told me he ran it for a short time in 1854 with Henry S. Morrill as fireman.

C. W. CLARK: Named after Charles W. Clark—one of the early Engineers who was killed in an accident.

COL. HOSLEY: Built by Mr. Lauder at the Northern's Shops. He recalled Mr. Rowell from the West to run this engine as he considered him most capable. I often saw the "Hosley" and admired its appearance. It was used exclusively for freight service.

JAMES SEDGELEY: In 1862, while Sedgeley was Master Mechanic of the Northern R. R., he built a locomotive and gave it this name. It was purchased by the Long Island R. R. and the name was still retained. In 1869 the Long Island R. R. sold it to the Bennington & Rutland R. R. where it took the name "Lebanon" and was in service a long time. This engine should not be confused with the "Sedgeley" found in Mr. Yeaton's list.

The foregoing comments furnished by Mr. Stuart, have done much to clear away some of the facts relative to these early engines. One cannot but admire the care and patience used and the authorities consulted.

Before closing this chapter on the Northern R. R., there are two other items of interest which should be included in this story. The first is the Latham Works at White River Jet., and the locomotives built by the Northern R. R. in their own shops.

In the matter of the Latham Works, much is left open to conjecture. We do know that Latham & Co. had quite an extensive plant at White River Junction, Vermont. We also know that he had done some extensive repairing to the Northern engines in his shop. We also know that financial troubles overtook him between 1853 to 1855 and it is possible he fancied that if he could add locomotive building to his job work his operations would expand and put his works on a remunerative basis. At any rate, John P. Laird, later of Pennsylvania R. R. fame, was taken from the Northern R. R. and became connected with the Latham Works. The expected orders for locomotives did not come in and the firm failed and we suspect the Northern R. R. was involved. From Mr. Nash, who was connected with these works, we learn that they built and delivered the following locomotives:

Central Ohio R. R., "N. L. Whittemore", July 1854, wt. 27 tons
Connecticut & Passumpsic River "Enterprise", 1856
Chicago & North-Western R. R. "Gladiator" #103, 1856
Peoria & Oquawka R. R., "Competitor", renamed "Wm. H. Cruger",
date not known, but during this period.

At the time of the failure of the Latham Works, there were two unfinished engines on the floor. These were taken by the Northern R. R. and completed in their shops. One of these, the "Vermont", was sold, the other, the "Nesmith", went into service on the Northern R. R.

Whether this inspired James Sedgeley, the Master Mechanic of the Northern R. R., with the notion of constructing engines in times when the shopmen were not especially busy over the regular repairs, we are not certain. We do know that he built the "James Sedgeley" in 1862 which was sold to the Long Island R. R. to take the place of the Baldwin "Wyandank", taken in March of that year for the United States Military Railroad. We know that two more were built and sold to the Chicago & Alton R. R. These were Nos. 66 and 67 and were de-

livered in the autumn of 1865. In going through the file of Northern R. R. Reports in the Baker Library we find that from 1855 to 1871, the road is stated to have "built" 7 locomotives; "rebuilt" 11 locomotives; "purchased" 7 locomotives; "exchanged" one locomotive and "sold" four locomotives.

While it is true that James Sedgeley did not have the mechanical ability displayed by his successor, J. N. Lauder, still we must credit him with the idea of building locomotives in his own shops at times when his own work was slack.

(The next locomotives in this series will be those from the Boston & Lowell Railroad.)

It has been a pleasure to receive several letters from our members commenting on this series of Boston & Maine locomotives. In Bulletin No. 28, in connection with the Eastern R. R., one member is of the opinion that the "Carroll", Souther, 1856 should read 1853; also the "Ossipee" No. 3 should read Souther, 1853. The fact that the Great Falls & Conway R. R. was completed in 1855 and that in 1856 Souther was located in the Tredegar Works at Richmond, Virginia, leaving Boston with his force of workmen in 1854 gives us good reason to believe that these engines were of an earlier construction date.

In connection with the "Oakdale" on the Worcester & Nashua R. R., the surmise is made that this was one of the early engines on the Boston & Providence R. R.

The No. 105 which was illustrated was credited as a Rogers engine somewhat against the will of the writer. It was argued that the photograph proved this point and that the Annual Report of the Eastern R. R. was incorrect. It has now been definitely established that Eastern R. R. No. 105 was built by the Eastern R. R. in 1882, was an 0-4-0 switcher, 15x22" cylinders, as stated in their Annual Reports and that the engine listed and illustrated, while it was built by Rogers, was built in 1889 and was one of four (4) engines, Nos. 102-105, 18x24" cylinders, built for and delivered to the Eastern Railway of Minnesota.

In connection with the original Boston & Maine engines, B & M "Everett", No. 82, was rebuilt to an 0-4-0 saddle tank switcher and was used as a shop shifting engine at the old Boston Shop (near the North Station).

The "Ajax" No. 32 and "Mercury" No. 53 were originally of the 4-4-0 type and were never rebuilt to 0-4-0 switchers as stated in Bulletin No. 28.

The "N. G. Paul" was built in 1869 under the direction of Mr. N. G. Paul who was Master Mechanic of the B & M Shops. This engine was scrapped in Feb. 1892. This engine was replaced by the "H" which was changed to No. 46 on June 20, 1892. The "H" was formerly the 196, formerly Eastern R. R. No. 96 and this engine was cut up in May, 1895. A new No. 196 was built by the Manchester L. W. in 1889 of the 4-4-0 type. Thus the original "N. G. Paul" was a 4-4-0 type and replaced by the Rhode Island 2-6-0 from the Eastern R. R., two separate and distinct locomotives.

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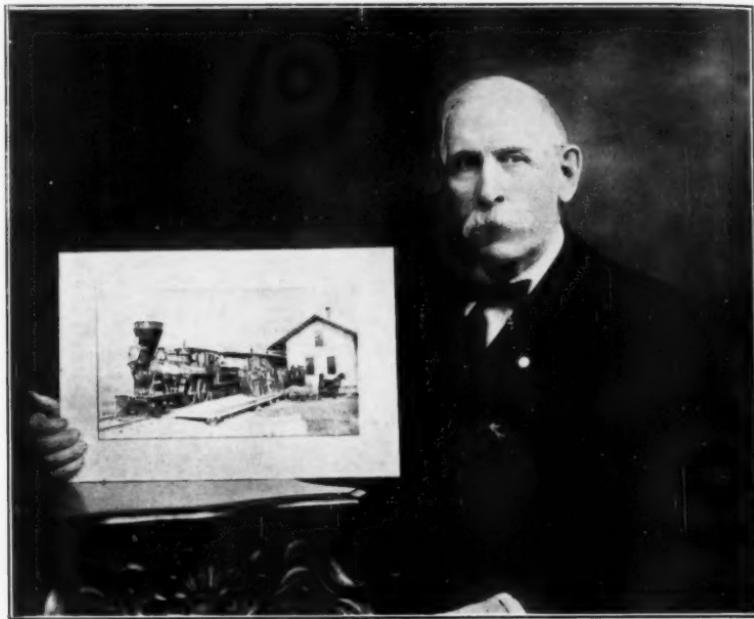
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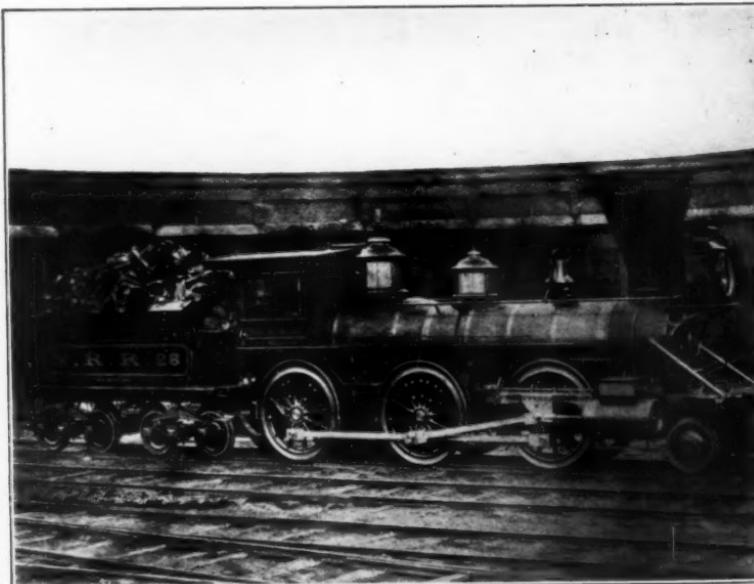
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Charles Christopher Rowell, 1837-1932.



Northern R. R. "Col. Hosley." Northern R. R., 1872.

Courtesy J. W. Merrill.

Charles Christopher Rowell

Born at Sharon, Vermont
November 1, 1837

Died at Sioux City, Iowa
April 30th, 1932

By INGLIS STUART

HE passing of this veteran locomotive engineer deserves appreciative recognition of his career. He was the last survivor of a group of New England engineers, each of whom in early life was employed by the Northern (N. H.) R. R. during its first decade of operation and, before reviewing Mr. Rowell's own career, it will not be amiss to review the careers of the others comprised in this group.

John P. Laird, born in 1823, may be considered the senior in the assembly. Graduating from the cab of the "Etna" he became Mechanical Manager of the Latham Machine Works at White River Junction, later taking charge of Motive Power at the Altoona Shops of the Pennsylvania R. R. From this he passed to the office of General Superintendent of the North Missouri R. R. He had executive talent as well as mechanical knowledge and constructed several creditable locomotives during his stay at the Latham Works. His health breaking down, he was obliged to cease activity and died about 1884.

Contemporary with Laird was Solon Fisk, born in 1826. After apprenticeship in the Lowell Machine Shop, he came to the Northern during this decade. With a long experience in the cab rounded out, his final run was over the Alton road with retirement to well earned leisure in which he indulged his fondness for reading. He was esteemed by the citizens of Bloomington, Illinois, where he died aged ninety-two years.

Next to Laird and Fisk, but older than either, comes the name of Daniel Atkinson Clark, born February 26th, 1821. He stayed with the Northern till 1853 when he transferred to the Michigan Central. Leaving the latter road he was for awhile on what is now the Chicago and Northwestern Railway and then engaged in the milling industry. The venture proved he had decided business talent for he was the owner of a large grain elevator at Duluth where he died in his eighty-fourth year.

His brother, Simon Rowe Clark, born at Sanbornton Bridge, N. H. in 1831, became Daniel's fireman on the "Blackwater" in 1848 and early was promoted to be an engineer. On promotion he was given the "Hanover" which the Northern had just acquired and the writer recalls the quiet pride with which Mr. Clark in his last years narrated the event. In company with his fellow workers he had witnessed at West Lebanon the advent of the "Hanover", a Souther machine, and ad-

mired its general neatness and tasteful painting which in that era adorned New England locomotives. With surprise, however, he learned that it was to be his locomotive. In 1854 Simon joined his brother on the Michigan Central from which he passed to the Burlington. This Company deemed Simon Clark its best engineer and awarded him a silver medal for excellence in locomotive running. He was placed in charge of the Round House. Despite these duties he was active in the affairs of fraternal societies. He died in his eighty-sixth year greatly respected by friends and neighbors and rests in the cemetery at Bluffs, Illinois.

James Clark Nash, born at Brattleboro, Vt., in 1835, served apprenticeship under Laird at the Latham Works and helped in the construction of the several locomotives designed by Laird. Mr. Nash was on the Northern as engineer a short time comparatively before he went to the Burlington. Still he fairly can be included in the group for he knew all its members. After a long career on the Burlington, Mr. Nash went to the 'Frisco in 1879 with which Company he remained till retired under the rules. His personality was attractive and his name always was mentioned with respect and admiration. He died in 1921 and his monument, a modest needle bearing his name and those of his family, stands in the well kept Maple Park Cemetery at Springfield, Missouri.

Included within this first decade were the last of the group—John Perley Mason and Charles C. Rowell. Of nearly the same age and of service dating within a few months of each other, they maintained life long intimacy. Mason, born at Sweden, Maine, was called from the Northern to the Boston, Hartford and Erie R. R.'s. Mechanical Department where—so his friend Rowell remarked—"he became the brains". Later, Mr. Mason served the Chicago, St. Paul, Minneapolis and Omaha Railway. Retired by rule, he settled at Doon, Iowa, and occupied himself caring for his investments in various places. From these investments he drew an ample income enabling him to travel wherever he pleased and to pass his winters in California. He died at Doon in 1929. His body was brought to Dorchester, Massachusetts, and laid beside that of his son and wife in Cedar Grove Cemetery. The plain substantial monument of granite stands near the centre of the grounds and his photograph hangs in the rooms of the Railway and Locomotive Historical Society. It shows a face of marked character.

Of such caliber were Mr. Rowell's comrades in this group of the Northern's locomotive engineers. Similar groups may have existed on others of the independent New England Railroads, but, however that may have been, it must be conceded the Northern—less than seventy miles long—harbored a galaxy of engineers possessing notable ability and unblemished character.

Mr. Rowell, the youngest of this group, passed his boyhood like many another Vermont lad and at the close of schooldays went to Plattsburg, N. Y. where he found employment. At nineteen he entered the Northern's service as fireman. In the summer of 1859 he was promoted to engineer. That staunch product of the Hinkley Works—the "Grafton"—was assigned to him and his long career commenced. After inter-

mediate engagements with various New York and Ohio railroads he went to Iowa late in 1872 and entered the service of the Sioux City and St. Paul Ry. The line later merged in the Chicago, St. Paul, Minneapolis and Omaha Ry. and with it he remained until pursuant to the rules of the Company he retired and was pensioned.

At Sioux City Mr. Rowell had a comfortable house and garden located in the residential section known as Morningside. Here he delighted in entertaining friends and the writer recalls with utmost pleasure the welcome extended to him by Mr. and Mrs. Rowell. Conversation ranged widely for the auditor was deeply interested in hearing this venerable man discourse on latter day affairs as well as in listening to his narration of the "Long Ago". It was evident that Mr. Rowell by constant reading had been following current affairs intelligently and that he had wide knowledge with strong convictions. It was hard to realize while listening to him that his age was so great for he bore his years with surprising ease.

When the conversation turned on the various railroad lines which had fallen under his observation, it was plain that memories of the Northern had left deepest impress. He alluded to the little "Jehu" which in construction days had drawn the ballast train and later, blocked up in the West Lebanon Shop, furnished heat and power. He related how good it felt at the end of a bitterly cold run from Concord across the uplands of New Hampshire to step over from his housed locomotive, and, leaning back against the "Jehu" get genial warmth. He reviewed the early locomotives beginning with the "Contoocook", that finally had the alias "Mrs. Dustan" lettered on the cab panel and from the fact that all parts were painted black, commonly was called "Widow Dustan". Hannah Dustan, it will be recalled, was the heroine of Indian Warfare in the Sixteen Hundreds. He detailed the "Shaker's" trip when so many bolts were *shaken out* the locomotive had to halt at Fisherville, only nine miles from Concord. How a driving wheel tire of another engine snapped across and hopped from its place, rolling like a hoop into the bushes. Then there was the anecdote of the Master Mechanic's mis-adventure in trying to start the renovated "Hanover" at West Lebanon Round House. "Mr. Master Mechanic" trotted around the spic and span machine, scrutinizing every detail. He climbed into the cab, clanged the bell to have the table rails turned to his stall, threw the lever and pulled the throttle. The "Hanover" did not budge! Again and again he pulled and pulled. Still the engine did not obey. He got down, hustled around, climbed back and renewed the pulling. Finally he sent across the River to have Mr. Laird come over from the Latham Works to explain how the Latham Machine Co. dared deliver an engine which would not move. In due time Mr. Laird arrived and as he approached threw a casual glance at the "Hanover". Mounting the cab he quietly pulled the drop hook handle, opened the throttle and glided upon the table. Whereat the men who silently had watched "Mr. Master Mechanic's" fuming efforts burst into peals of laughter. Passing from humorously Mr. Rowell related the loss of Charles W. Clark, his warm friend killed through an accident on the line for which

"Charlie was in no wise to blame". Although years had flown Mr. Rowell's sorrow still was keen as he recalled that friendship.

A good many years after Mr. Rowell had left, the Northern acquired the "Col. Hosley" a mogul, and Mr. James N. Lauder, who had become Master Mechanic summoned him to return and take charge of the new machine for he admired Mr. Rowell's skill and was unwilling to risk the "Hosley" in other hands. So, during the greater part of 1872, our friend was running again through early scenes but alas! many of the old locomotives and their engineers had vanished and from the cab windows of the newcomers to the Roster unfamiliar faces looked out at him.

The writer remarked at this point "how little either he or Mr. Rowell could have expected that the boy, who hung around watching him engaged over the "Hosley", would be sitting beside him more than fifty years later and recalling those Saturday afternoons at West Lebanon!"

There was allusion to the bold course pursued by Onslow Stearns in thwarting the Vermont Central's attempt by linking several short roads to create a route starting at Claremont and reaching Manchester. There the Manchester and Lawrence, then independent, would bring the new line to tidewater over the Boston and Maine R. R. Controlling such a line the Vermont Central would flank the Northern and Concord R. R.'s. and divert freight traffic then being interchanged at West Lebanon. Stearns dealt just one blow. One Sunday, when court writs to estop him were unobtainable, he ripped the rails from the sleepers of the New Hampshire Central between Henniker and North Weare. That blow proved effectual and the domestic troubles of the Vermont Central at this time led to its losing the various links. These came under control of the Northern and its ally, the Concord, and no attempt to relay the rails was made. Tonnage moved as formerly, ensuring long prosperity to the Northern.

He related anecdotes of other officers, dwelling more particularly on Mr. Lauder, whom he esteemed for administrative ability as Master Mechanic and cherished as a friend. He related what pleasure it gave him when Mr. Lauder and his son George B. Lauder came from the East for a visit and stayed with him at Sioux City. When the visit ended he took them both in the cab of his locomotive on its regular run as far as the Junction with the Illinois Central at Le Mars, Iowa. Mr. Lauder was related to John P. Laird and, through Mr. George Lauder, a photograph was obtained which Mr. Rowell assured the writer was a faithful likeness of Mr. Laird in his prime.

Turning from the Northern, Mr. Rowell alluded to the Vermont Central. As a boy he had witnessed its construction through Sharon and had it under observation there and at White River Junction during the period between 1848 and 1872. He had noted all its locomotives. Its early outfit was varied. Fourteen Baldwins were on the roster, nearly half the motive power. Their presence was due to the predilection of Henry R. Campbell, the Vermont Central's General Manager, who came from Philadelphia and was familiar with them on the Pennsylvania

road superintended by him in the Forties. Four of these the men dubbed "The Little Baldwins", to distinguish them from their heavier companions. The four, weighing about eighteen tons each, were named, "St. Albans"; "Erie"; "Burlington" and "Saguenay". The heaviest, of the Vermont Central Baldwins, was the "Keystone", a freighter weighing 50,000 pounds and having eight driving wheels. It probably was in 1849 the largest locomotive in New England but its career was brief for it was destroyed in a round house fire. The "Little Baldwins", when their day for General Repairs arrived, were rebuilt at the Northfield Shops and resumed their places on the Roster as "Built by the Vermont Central R. R." This policy applied also to the other names—Essex—Hinkley—Amoskeag, etc.

Only two Fairbanks appeared on the Rosters of the Fifties—"The Stranger" and "Royalton". Mr. Rowell spoke of these with admiration. So also did others, for instance, Henry E. Day of the Western Massachusetts R. R. and Charles H. Brown of the Rutland and Burlington. "The Stranger" and "Royalton" were reserved for drawing official trains and showed their speed between Windsor and St. Albans. Willard Fairbanks' failure to place more of his locomotives on this road was ascribed by Mr. Brown as due solely to the Vermont Central's jealousy of the Rutland and Burlington R. R. On the R. & B. the majority of the engines were Fairbanks and he said that this fact was enough in the judgment of the Central to warrant rejection of Taunton products! Mr. Rowell, for his own part, preferred a Hinkley. In this choice quite likely he was influenced by early associations with the dear old "Grafton". Such choices were made by all engineers of those days. Each, after reviewing the makes with which he had been familiar, would, in answer to the question, "What make did you like best?" reply "I liked the _____ best of all" and proceed to give reasons. Thus Charlie Brown would name a Taunton and comment on the "Shelburne" to which he was assigned while a Rutland engineer and which for seventeen years he ran without accident. Mr. Day would reply to the question by saying he liked a Mason best and cite his runs on the Western Mass. R. R., out of Springfield to Pittsfield with the "Olympus". George Althouse would name as his choice the "Island Belle", a Breese and Kneeland. All these veterans had a favorite make—Baldwin—Danforth—McQueen—all had their partisans.

Mr. Rowell adverted to experiences on the Ogdensburg and Lake Champlain R. R. in terms briefer than in the case of the Northern (N. H.) R. R. showing that recollections of the Ogdensburg road had not left as deep impression as in the case of the New Hampshire road. What he narrated pertained to the Master Mechanic, Mr. Abraham Klohs, and of him his remarks were highly favorable, not merely as a man, but also as a Machinist and he enumerated several improvements in locomotive construction wherein Mr. Klohs was years in advance of customary practice.

Speaking in a general way Mr. Rowell was inclined to believe that the efficiency of the locomotive built in the Eighties had not moved in equal stride with the vast increase of weight now characterizing the

modern steam locomotive, and he based his observation as derived from running thirty ton machines and hundred ton engines, the latter having been the type on which the final run was made. He was not enthusiastic as to electric locomotives. In one of his letters written in 1931 where he was reviewing old time engineers and alluding to "the almost human feeling that existed between them and their engines", he added. "That feeling has about all passed away. It cannot exist between any man and an electric engine and never will. They are just a pile of junk and except when outside generated power is applied to them they contain no inherent energy of their own."

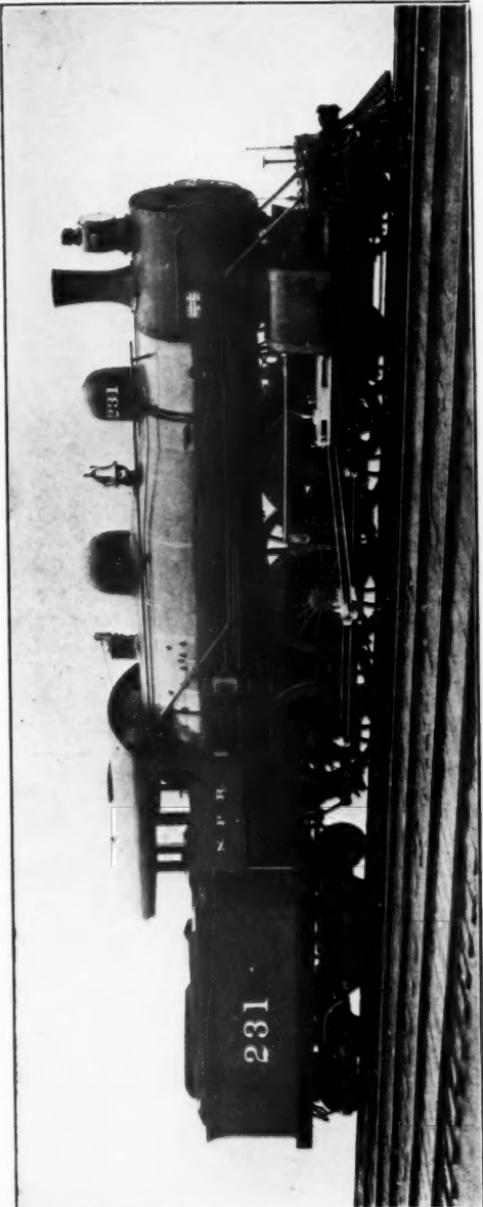
The managers of the Chicago, St. Paul, Minneapolis and Omaha Railway have the pleasing rule of entertaining their pensioners annually at a banquet and they provide transportation for these guests and their wives on a special train. Mr. Rowell enjoyed these reunions where foregathered comrades of active days on the Omaha. It so happened he long ago had yielded to the writer's request that a photograph be taken which would depict him as holding in view a picture of the "Grafton"—his first locomotive. An official of the entertainment committee borrowed a copy of this photograph and, during the display of pictures, it was thrown on the screen. When the audience saw that well known face an ovation of cheering ensued. The picture was the last thing Mr. Rowell expected to see there and he gazed at it in amazement while the storm of applause swirled around him. This acclamation revealed how beloved he was by all, for he had that endowment which always drew friends—sincere warmheartedness. His courtesy was instinctive and while conversing the play of his expressive countenance was animated and the winning smile of his kindly eyes will linger in the memories of those who held his friendship. They will miss that striking personality but its recollection will stand out—a beacon for guidance—and enhearten them to tread in his footsteps. The young grandson, who bears his name, will always feel a joy that he was wont, after school hours, to help in household cares for which his grandfather's waning strength was no longer adequate.

Brief Notes on Famous Engines—II

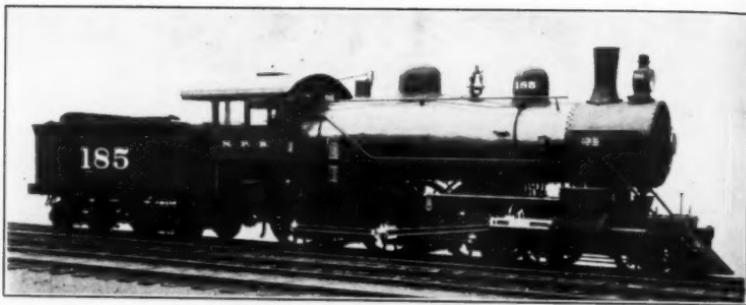
By ARTHUR CURRAN.

REERENCE to the success of the 4-6-0 type on the Lake Shore & Michigan Southern R. R., in Bulletin No. 28, brings to mind the popularity of this same type on the Northern Pacific Railroad; where, as on the Lake Shore, the 4-4-0 became inadequate at an early date. The Northern Pacific R. R. had some nice eight wheelers, too; but heavy trains and stiff grades made a combination that ended their usefulness.

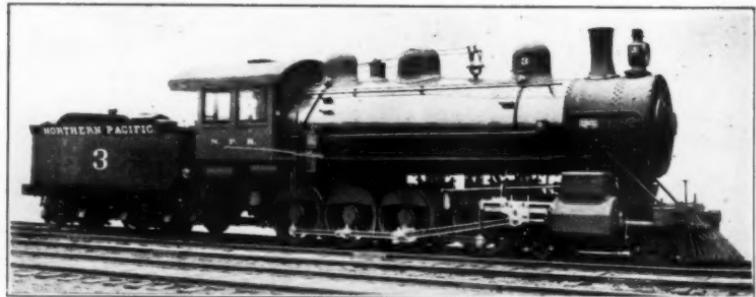
Some thirty years ago, the North Coast Limited presented a pleasant surprise to travelers who had thought that railroad luxury existed



Northern Pacific R. R. #231. Schenectady L. W., 1899.



Northern Pacific R. R. #185. Schenectady L. W., 1897.



Northern Pacific R. R. #3. Schenectady L. W., 1897.

east of Chicago only! Vestibuled and electric-lighted throughout, with observation and dining cars of the highest class, this train was, in many respects, the finest in the West, and certainly one of the heaviest. The writer rode this train, St. Paul to Livingston, in 1902; at which time it was handled by Schenectady ten-wheelers.

There were two classes of passenger 4-6-0 engines; one with 73 inch drivers for low grade divisions and the other with 69 inch drivers for the hilly stretches. Both classes were handsome, as the accompanying illustrations show, and incorporated in their design the best traditions of the type and the builders. The Northern Pacific R. R. was not concerned so much with speed records as with the delivery of passengers "in one piece" and on the best schedule which the period afforded. The North Coast Limited set a standard of service and the 4-6-0 type furnished the "sharp end."

For freight service the road used several types, the most striking being the 4-8-0 which, at the time, ranked among the largest in the world. A "drag" going over Bozeman Pass was a spectacle not to be forgotten, nor "sneezed at" even in these days of grand railroading. Old-timers on the Northern Pacific R. R. will agree to this.

The writer wishes to thank the American Locomotive Co. for their kindness in furnishing the accompanying illustrations and also for the following data:

NORTHERN PACIFIC 4-6-0 AND 4-8-0 LOCOMOTIVES BUILT AT SCHENECTADY, 1895-1905.

Road No.	Class	Year	Cylinders	Drivers	Wt. of Engine.
13- 16	4-8-0	1897	23&34x30"	55"	165500
170- 171	4-6-0	1897	22&34x26"	63"	172500
185	4-6-0	1897	20x26"	69"	150600
186	4-6-0	1897	22&34x26"	69"	155500
172- 179	4-6-0	1897	22&34x26"	63"	172500
180- 189	4-6-0	1897	22&34x26"	63"	172500
201- 208	4-6-0	1898	22&34x26"	69"	155500
221- 228	4-6-0	1898	20x26"	69"	130600
160- 167	4-6-0	1898	22&34x28"	63"	173800
229- 232	4-6-0	1899	20x26"	73"	153500
209- 212	4-6-0	1899	22&34x26"	73"	159000
130- 143	4-6-0	1899	22&34x30"	63"	175500
122- 131	4-6-0	1900	22&34x30"	63"	181000
104- 121)					
132- 133)	4-6-0	1900	22&34x30"	63"	181000
213- 218	4-6-0	1900	22&34x26"	73"	159700
240- 241	4-6-0	1900	22&34x26"	69"	159200
1300-1308	4-6-0	1901	22&34x30"	63"	182000
190- 199	4-6-0	1901	22&34x26"	63"	165000
242- 245)					
207- 208)	4-6-0	1901	22&34x26"	69"	162000
233- 236	4-6-0	1901	20x26"	73"	157000
1309-1315	4-6-0	1902	22&34x30"	63"	_____
246- 249	4-6-0	1902	22&34x26"	69"	_____
226- 228	4-6-0	1902	20x26"	73"	_____

A Trip Across the Sierra Nevada Mountains in 1868

N JUNE 17th, learning that the Pacific Railroad Co. was to run their first through train across the Mountain on the following day, we hastened to secure a ticket from the agent and learning that the train was to depart at 6½ A. M., in the morning, we were on hand early. The train was all made up and standing in the street when we alighted from the carriage that had conveyed us from our hotel, and we being a little early devoted some of our spare time to looking over the train and iron horse that was to take us across the mountain. The train consisted of one box car well stocked with freight, one baggage car also well filled with freight and the U. S. mails, and three of the railroad Cos., new cars just out of the shop.

"The locomotive engine that was to draw our train up the steep slopes of the mountain was the fine "Antelope" from the work shops of McKay and Aldus and she was in fine shape and had just been over-hauled and painted and presented a pretty picture with her bright red wheels, walnut cab, shiny bright brass work and a picture of an Antelope painted on the headlight case. Hank Small, our engineer, was on hand oiling up and looking over his iron steed with a critical eye to see that all was well. Our time being now short we took our seat in the cars and shortly afterward there was a shriek from the locomotive whistle and we pulled slowly out amid the shouts of the crowd that had gathered to see us off.

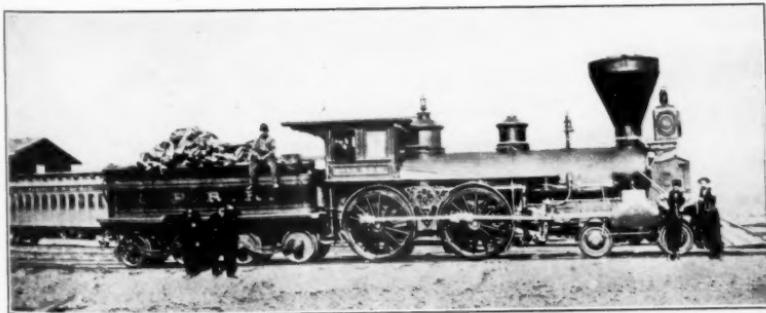
"After skirting the shores of Lake Sutter we proceeded out the "B" St. levee some three miles when we came to the fine new bridge across the American river. After slowly crossing that stream we head due east and our first stop is at Junetion (now called Roseville) where the line crosses the line of the California Central RR. from Folsom. After a brief stay we proceeded on our way and now the mountains appear so close that it seemed that we could put our hand out of the window and touch them, and the snow on the mountains could be plainly seen. And now we reach Rocklin where the R. R. is building a fine round house out of the granite that abounds there. After taking on wood and water we are on our way again. Now we enter the foot hills and as we commence to ascend more rapidly, the great mountains before us seem to sink down until we lose sight of them altogether and we do not see the snow fields again for a long time.

"The engine blows and wheezes, with short, sharp aspirations and the feeling of weight as we lean back in our seat tells us that we are ascending a steep and increasing grade.

"Newcastle, Auburn (a pretty little and somewhat active place), Clipper Gap and New England Mills, all more or less important mining and trading posts are passed and at 9:50 A. M. we have ascended 2,448 feet and reach Colfax, fifty-four miles from Sacramento, where stage roads lead off to Grass Valley, Nevada City and other mining towns. Here we should meet the down train and pass it but snow slides beyond



"We Left Sacramento Amid the Shout of the Multitude."
Sacramento as it appeared in the late '60's.



Central Pacific "Gold Run." McKay & Aldus, 1867. Like the "Antelope"

"We Reach Cape Horn."



the great summit tunnel have delayed the train between that point and Reno, away down on the Truckee beyond the Sierras, and after waiting a few minutes for lunch we move on again.

"Soon after passing Colfax the cars pass on a high embankment around Cape Horn and nervous passengers begin to look around anxiously, peering with evident trepidation into the depths below.

"Eight miles from Colfax we pass the mining town of "Secret Town" and look back into the valley from an elevation of 2,985 feet. Up and up, onward we climb skyward. At sixty-seven miles from Sacramento we look down on the well nigh exhausted placers of Dutch Flat. Two miles further on we reach Alta, at an elevation of 3,625 feet above the sea.

"Here we expected to but did not pass the down train which has been delayed by an accident on the other side of the Summit by which the cars have been thrown off the track and smashed up, making it impossible for the passengers to reach the Summit in time to catch the regular train.

"Passing Shady Run station we reach the first tunnel, 500 feet long, seventy five miles from Sacramento, and 4,500 feet above the sea. The mountains are growing more rugged and the snow levels come down to the road. We are in the heart of the Sierras, a barren, dreary desolate country. At Emigrant Gap we meet the down train eighty-four miles from Sacramento and the road is open before us at last. Then comes another tunnel 300 feet in length. We pass Crystal Lake and are at Cisco, a town of shanties which for a long time was the end of the road.

"We are 5,000 feet above the sea and still ascending. We pass through many long cuts blasted through the solid granite spurs of the mountains. We pass through continuous snow fields and drifts.

"Chinamen are swarming all along the road. They have nearly finished their work in this vicinity and are packing their traps preparatory to passing on over the summit into the great interior basin of the continent.

"One hundred and two miles from Sacramento we stand 6,800 feet above the sea. Two miles more and the cars reach the entrance of the great summit tunnel, 1,659 feet in length. We have sealed the great Sierras at last and a plus ultra might be written on the granite walls of the great tunnel before us. We are 7,043 feet above the sea.

"A swarm of Chinamen are busy at the other end of the tunnel shoveling away the snow, which has come down in great slides bringing with it huge granite boulders upon the tracks. The water pours down in torrents from the numberless crevices and seams in the granite walls and roof of the long, dark, cavernous tunnel, but we struggle through on foot and anxiously inquire after the prospect of getting through.

"Two or three hours will clear the tracks. We wait with what patience we may and at four o'clock the prolonged whistle of the good locomotive "Antelope" which has drawn us up the steep slopes of the Sierras is heard. "All aboard" shouts the conductor, George Wood, who has had the honor of taking the first passenger train across the

mountain, and the train moves slowly on. A halt for another slide, another start, another halt, and so we go slowly and carefully. The snow banks come down so close to the track that the eaves of the car rake them on either side.

"We have descended 600 feet and as we emerge from the last one the conductor exclaims; "By heavens, we are over the mountains. This is new road built this summer and we will have no more snow slides". It is true, indeed, the mighty task is accomplished at last after years of toil and the expenditure of millions of money. Words can not describe it, we will not attempt to do so.

"And now the train at accelerated speed moves downward toward the valley of the Truckee. The steam is shut off, the brakes put on and as the Eagle sets his wings and floats down we slide swiftly and smoothly down the mountains into the great basin of Nevada.

"The road winds around the precipitous mountain side, almost encircling Donner Lake as it descends, and following around a long canyon, making a circuit of seven miles to gain not more than a quarter of a mile, we reach the outlet of the lake.

"We have traveled nine and a half miles and descended 983 feet since leaving the summit. Now we descended rapidly on one of the most beautiful, smooth and solid roads on the continent into the romantic valley of the Truckee. As the first through passenger train sweeps down the eastern slopes of the Sierras, John (meaning the Chinese laborers) comprehending fully the importance of the event, loses his natural appearance of stolidity and indifference and welcomes with the swinging of his broad brimmed hat and loud, uncouth shouts the iron horse and those that he brings with him.

"John with his patient toil, directed by American energy and backed by American capital, has broken down the great barrier at last and opened over it the greatest highway yet created for the march of commerce and civilization around the globe. The whistle sounds a long, shrill scream and the train arrives at Truckee station, 119 miles from Sacramento and 5,800 feet above the sea.

"The portion of the trip between this point and Summit Valley had, until this day June 18th, been made by stage. As we pass we see the jaded stage horses looking wonderingly, and as it seems to us, joyously, at the swift speeding train, their weary toil through mountain snow and mud is over and now the stage men will pull down their stables and pack their traps, and drivers will fold their tents like the Arab and horses and men will as silently steal away to be seen no more here.

"Just as the last faint light of day fades from the summit of the Sierras, the long, shrill shriek of the whistle announces our arrival at our journey's end, nineteen miles from Virginia City, and we find ourselves 154 miles from Sacramento, in Reno, a town of stores, hotels, saloons, gambling houses and stables which have sprung up like magic within a month. The whole population, men, women and children, rush out to meet us and give a welcome as the first passengers to arrive across the mountain by train.



"At Colfax the Stage Roads Branch Off to the Mines."



"We Reach Our Journey's End at Reno, Nevada." Depot is at end of street.

"We could not help but notice as we passed along the line the number of locomotive engines that the company has at work. At every station that we passed there was one or two engines and at some stations there were more. We noted the names of some of them and recall the following, "Nevada; Oneonta; Coness; Atlantic; Gold Run; Arctic; Truckee; Piute, Klamath; Achilles; Colossus; Tip Top and Leviathan." There were a number of others that the names could not be read.

"We feel sure that the road will be finished on time and will be as well built, if not better than any in the country. And thus ends the trip of the first passenger train across the Sierra Nevada mountains, made June 18th, 1868."

(Ed. Note. The above account appeared in the "Alta California," a daily newspaper published in San Francisco, dated June 20, 1868. No name was signed to the account but it relates to the first train crossing the Sierra Nevada Mountains. The clipping and photographs were furnished by Mr. D. L. Joslyn, our Resident Western Director.)

The Railroads That Make Up the Present Northwestern Pacific R. R.

By SHIRLEY M. TRUITT

THIS is a brief outline of the history of the railroads that are included in the present N. W. P. R. R. This outline also includes a description of the rolling stock and other interesting data and is made up from various sources such as information obtained from old employees, papers, publications, etc. The period covered is between 1868 and 1917. The history of each road is treated separately.

The North Western Pacific was incorporated January 8, 1907, under the laws of California, to combine the interests of the Southern Pacific R. R. and the Santa Fe. The purpose of the N. W. P. was to operate these properties under a separate management and to complete the line to Eureka, California, together with necessary branches, a total of about 500 miles when complete.

The Southern Pacific R. R. interests consisted of the

San Francisco & North Pacific R. R.
California North Western R. R.
Eureka & Klamath River R. R.
North Shore R. R.

The three first named roads were standard gauge and the North Shore was a 3'-0 gauge line.

The Santa Fe interests were

San Francisco & North Western R. R.
Fort Bragg and South Eastern R. R.

Both roads were standard gauge.

At the time of the consolidation of these roads there were 204.78 miles of main line standard gauge and 95.64 miles of 3'-0 gauge main line and branches. The total mileage of double track, sidings, etc., was 404.78, of which 5.74 miles was not in operation and 25.77 miles were leased to a lumber road. The rolling stock consisted of

51	Locomotives (37 Std. gauge & 14 Narrow)
147	Passenger Cars (33 Electric)
29	Baggage, mail and express
346	Box cars
51	Stock cars
858	Flat cars
9	Coal cars
3	Ferry steamers

Each of the interests owned one half of the capital stock. Mr. A. H. Payson was president and Mr. W. S. Palmer was general manager.

The main line and largest road of the group was the

SAN FRANCISCO AND NORTH PACIFIC.

Prior to March 18, 1868, two railroads, The Sonoma County & Vallejo Railroad Co., and the Sonoma Railroad Co., were formed to build railroads in Sonoma County. Almost at the same time the Legislature

of 1868 passed a bill authorizing Sonoma County to vote on the issuance of bonds to the amount of \$325,000 to be turned over to these railroads for construction purposes. Sonoma County voted the bonds. The Sonoma County & Vallejo R. R. immediately assigned its interests to the San Francisco & Humboldt Bay R. R., organized in 1868 for the purpose of consolidating the two roads. This company graded 10 miles of road north of Petaluma in Sonoma County and on November 17, 1869 sold the property to the San Francisco & North Pacific R. R. Peter Donahue came into the picture about this time and purchased the interests of the S. F. & H. B. R. R. for \$30,000. This gave him the privilege to tap a rich timber belt of unknown value to the original people. The new road was not looked on with much favor as only about 15,000 people lived in the six counties through which Donahue proposed to run his line. Donahue had just sold out his interests in the San Francisco & San Jose R. R., which he reorganized in 1862-1864, connecting San Francisco and San Jose. His second locomotive on that line was a Norris 4-4-0 built in 1862, builders number 1009. This same locomotive became No. 1 on the Donahue lines north of the bay. Donahue changed the name of the company to the San Francisco & North Pacific and sold his Sausalito terminal interests to the Sausalito Land & Ferry Co., which later on was sold to the North Pacific Coast. The first spike of Mr. Donahue's road was driven August 30, 1869, at Lakeville near Petaluma. Prior to this time there was a small 2½ mile line called the Petaluma & Haystack line which ran from Petaluma to Haystack to connect with the stern wheel steamers for San Francisco, 37½ miles away by water. This road had one engine and when it blew up and killed one of the owners the road went out of business. Some time after starting his road Donahue quarreled with the town of Petaluma over depot rights and instead of Petaluma becoming the terminal he made Lakeville his terminal, which was a short distance away. In 1872 or 1873 some Petaluma capitalists organized the Sonoma & Marin R. R. Co., and built from Haystack towards San Rafael about 20 miles. The road ended in the salt marshes. This line possessed one locomotive, a few flat cars and a caboose but was never operated. It is possible that this road was an extension of the Petaluma & Haystack line. For a number of years the Sonoma & Marin lay dormant. It bothered Mr. Donahue and he eventually bought it for \$85,000.

In 1875 an experimental road called the Sonoma Valley Prismoidal R. R. was started and 5½ miles were complete in 1876. This line ran from Norfolk towards Sonoma. This road was built on the prismoidal or one rail system having a triangular rail of wood 27 inches base and 15 inches high, shod with iron on top. The engines and cars were carried on central wheels which ran on the iron shoe on top of the triangular rail and there were balance wheels running near the base to prevent oscillation of the cars. At the lowest point of the car, wheels were placed which ran on rails laid over road crossings where the prismoidal rail could not be used. The cost of the road was \$4500 per mile. This road was only in operation a few months when it was converted to a 3'-0 gauge. It was proposed to extend this line to Tolay Creek on San

Pablo Bay and there ferry to San Francisco. This plan was not followed out and the line was extended to Napa City where a connection was made with the California Pacific. The terminal in the south was on Petaluma Creek near Ignacio. From there a stern wheel ferry transported passengers and freight to San Francisco, a distance of about 23 miles. This road had two locomotives and four passenger cars. The cars were sold to the N. P. C. when the line was altered to standard gauge in 1890. Donahue was forced to buy this road to protect his interests in Sonoma County. At one time it was reported that the California Pacific had bought the Donahue system but this seems never to have been a fact. This was in 1871, and the report stated they had also bought the Petaluma Valley R. R. which no doubt was the Sonoma Valley narrow gauge. The main line was completed from Donahue landing on Petaluma Creek to Cloverdale, a distance of 56 miles, in 1872. The 34 mile trip to San Francisco from Donahue landing was made by stern wheel steamers.

In 1876 Donahue was forced to build the Guerneville branch which was constructed on the Russian River towards the coast to prevent the North Pacific Coast from coming up the river to reach Santa Rosa and the Sonoma Valley. This branch was 16 miles long and was built under the name of the Fulton & Guerneville R. R. chartered in 1876. This road tapped the rich timber district near Duncan's Mills and Cazadero. On June 29, 1877, the road was reincorporated as the San Francisco & North Pacific and was a consolidation of the Sonoma & Marin chartered November 13, 1874, and the Fulton & Guerneville chartered 1876. At this time the road had 72 miles of road in operation, including the Guerneville branch. The rolling stock consisted of

- 7 Std. Gauge Locomotives
- 13 Passenger cars
- 2 Baggage, mail and express cars
- 111 Freight cars of various description
- 3 Steamers

In 1879 the Petaluma branch connecting the Sonoma Valley R. R. with Napa and Petaluma was opened. In 1879 the road had in operation 93 miles of road and had been extended to San Rafael, intending to reach Tiburon on the bay.

In 1879 after the S. F. & N. P. had completed the Sonoma & Marin R. R. to San Rafael an arrangement was made with the North Pacific Coast to use their San Quentin Ferry to San Francisco. Donahue then organized the San Francisco & San Rafael R. R., and on May 1, 1884, the road was complete to Tiburon where ferry connection was made with San Francisco. The shops and round houses were moved on barges from Lakeville, near Petaluma, to a new site at Tiburon. At this time the rolling stock consisted of

- 8 Std. Gauge Locomotives
- 10 Passenger cars
- 3 Baggage, mail and express
- 222 Freight cars
- 4 Steamers
- 1 Launch

A ferry service was operated from Tiburon to San Francisco by single ended side wheel ferry steamers.

In 1885 Peter Donahue died and left his affairs in a muddled condition. In the settlement of the estate the railroad holdings went to the son, Col. J. M. Donahue, who extended the main line to Ukiah under the name of the Cloverdale & Ukiah R. R. In 1888 a 7½ mile section of road was built from Ignacio to Sears Point under the name of the Marin & Napa R. R. The son, J. M. Donahue, died in 1889 and by court order the Donahue interests were sold at public auction and purchased by A. W. Foster, Sidney V. Smith and Andrew Markham. None of these three had had any railroad experience. The road was reincorporated as the San Francisco & North Pacific, consisting of a consolidation of the following roads:

San Francisco & North Pacific R. R.
Sonoma Valley R. R.
Fulton & Guerneville R. R.
Marin & Napa R. R.
Cloverdale & Ukiah R. R.
San Francisco & San Rafael R. R.

In 1890 the Santa Rosa and Sebastopol branch, built under the name of Santa Rosa, Sebastopol & Green Valley R. R., was opened and the Sonoma Valley had been made standard gauge. The new management was able to pull the road through the panic of 1893 and 1894. By 1898 Foster was in full control of the road and he formed a new company called the

CALIFORNIA NORTH WESTERN R. R.

This road was chartered 1898 to build 210 miles north of the northernmost point on the S. F. & N. P. for the purpose of tapping the Humboldt and Mendocino counties redwood lumber district. The property of the S. F. & N. P. was leased for 20 years. The S. F. & N. P. at this time owned 177.74 miles of road and had the following rolling stock:

25 Wood burning locomotives
64 Passenger cars
7 Mail and baggage cars
646 Freight cars
3 Ferry steamers

In 1903 the San Francisco and Eureka R. R. was formed by the interests of the Cal. N. W. and parts of the line to Eureka were built under this name. The C. N. W. built 40 miles of road in 1904. In 1905 the C. N. W. owned the following rolling stock:

5 10-wheel wood burning locomotives
6 Passenger cars
133 Freight cars

In 1905 an extension of the S. F. & N. P. was built to Napa to connect with the Southern Pacific, making a total mileage of 184 miles for the S. F. & N. P.

About the time the Cal. North Western Ry. reached Willits, the Santa Fe R. R. had quietly acquired the San Francisco and North Western and the Fort Bragg and South Eastern, and proposed to build a line paralleling the California North Western which by this time was practically Southern Pac., to reach San Francisco Bay from the north. This worried the Southern Pac., who made arrangements to purchase the California North Western R. R. John Martin of the North Shore offered his line to Harriman of the S. P. in order to enable them to reach Humboldt Bay. Fearing that the Santa Fe would buy the North Shore if S. P. did not, Harriman purchased the property some time after 1902. About this time the Santa Fe and Southern Pacific made peace with one another and in 1906 the North Western Pacific R. R. was formed to operate the properties of both railroads.

After the merging of the interests of Santa Fe and S. P., the line from Willits to Shively was constructed, 107 miles in length. This road was completed in 1914 and is considered as one of the costliest pieces of railroad construction in the United States. Many tunnels, bridges and suspended construction of roadbed was required for this line.

In 1917 the road was commandeered by the Government. At this time the R. R. locomotive stock consisted of the following locomotives: (See N. W. P. Locomotive List.)

THE EUREKA AND KLAMATH RIVER R. R.

This road, now a part of the N. W. P., was built between 1896 and 1905. It was first known as the Humboldt Bay and Trinidad R. R. It almost immediately became known as the Eureka and Klamath River and had 39.29 miles of road including logging spurs running from Samoa, Cal., to near Eureka. 24.74 miles of the main line was leased to the Oregon and Eureka R. R., a subsidiary of the Hammond Lumber Co. This was primarily a lumber road reaching the timber in upper Humboldt County and Del Norte.

The rolling stock in 1906 consisted of

9	Locomotives
4	Passenger cars
181	Freight cars
69	Logging cars

THE NORTH PACIFIC COAST R. R.

This road was a 3'-0 gauge road which was started in 1870 as the San Rafael and San Quentin R. R., a 3½ mile line connecting San Rafael with Pt. San Quentin and thence by ferry to San Francisco. The line was opened in 1871 and was immediately leased to the N. P. C.

Donahue originally owned the terminal at Sausalito but sold it to the Sausalito Land and Ferry Co., which leased the property to the N. P. C. The North Pacific Coast was proposed to run from Sausalito to Humboldt Bay, a distance of 225 miles. The road was completed to Freestone, 60 miles, in 1876, although parts of the road had been in operation since 1871. The road reached Duncan's Mills in 1877, which

was as far as the N. P. C. ever went. The remaining road to Cazadero was built as The Northwestern R. R. in 1886 from Duncan's Mills to Cazadero, 7½ miles. This road was leased to the N. P. C. and had 2 saddle tank locomotives. The main reason for the N. P. C. was to reach the timber country in Sonoma and Mendocino counties. Alexander Duncan was operating a lumber mill on the Russian River at Duncan's Mills. (Burned in 1925). The Sausalito Land and Ferry Co. provided terminal facilities and in 1878 brought an action against the N. P. C. to recover its property, claiming that the road was making Point San Quentin its terminal and not Sausalito. This case was settled and Sausalito became the terminal. A branch was built at Moscow to serve the Russian River Land and Lumber Co., which was completed in 1876. At this time the road had

2 Ferries
9 Locomotives
10 Passenger cars
190 Freight cars, and were building 200 flat cars in their shops at Sausalito.

Mr. M. S. Latham of the London and San Francisco bank was the guiding hand of this road and when the finances of the company were in a bad way he pulled the railroad through. When the road was opened it could not pay operating expenses. Mr. Latham died about this time, and the road was without a leader. It was even proposed to scrap the road, reserving only the San Rafael San Quentin Ferry. There being no railroad Commission in these days the roads did about as they pleased in such matters. The scrapping of the road was defeated by only one vote of a member of the board of directors.

In 1877 the road had in operation

9 Wood burning locomotives
9 Passenger cars
190 Freight cars
60 Miles of road in operation

In 1882 the road had

11 Locomotives
16 Passenger cars
300 Freight cars
79 ¾ Miles of road in operation

A tunnel was necessary at Corte Madera in order to eliminate a long detour necessary to avoid the hills and reach Sausalito. Private capital built this tunnel and a toll was collected for each passenger during a 40 year term. This opened up the San Anselmo Valley.

In 1880 a new company was formed called the San Francisco and Northern and was for the purpose of consolidating the N. P. C., San Rafael and San Quentin and the Russian River Land and Lumber Co. This did not go through and the company remained as the N. P. C.

Again in 1883 another deal was on whereby the Oregon and Trans-continental Co. attempted to acquire the property but this fell through.

In 1885 attempts were made to abandon 41 miles of the line but the stockholders objected.

In 1889 the San Francisco, Tamalpais and Bolinas R. R. was built from Bay Junetion, now called Almonte, to Mill Valley, $1\frac{3}{4}$ miles. This road was built by private capital and was leased to the N. P. C. in 1889. This road after 1896 made connections with the Mt. Tamalpais and Muir Woods Scenic Railway which ran from Mill Valley to the top of Mt. Tamalpais and was advertised as the most crooked road. Abandoned 1929.

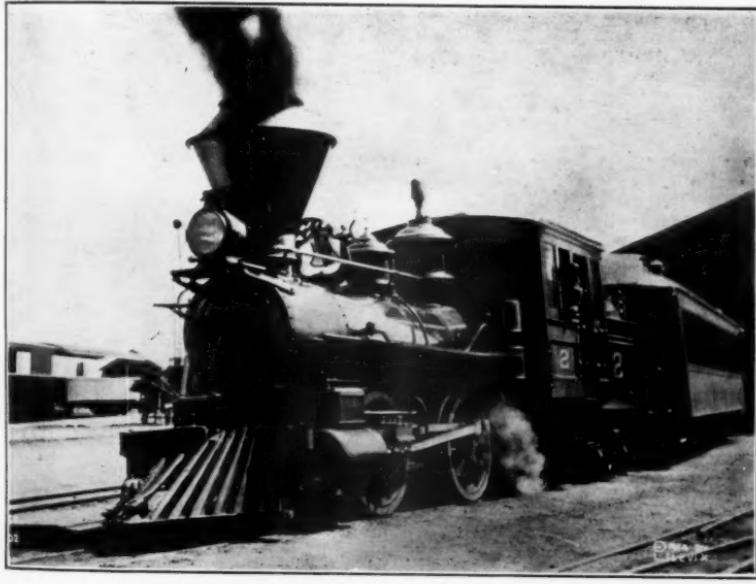
New capital came into the road during the next 10 years and in 1902 Mr. John Martin, the real founder of electrical power development in California, together with his associates took over the road and renamed it the North Shore Ry. The suburban section of the line to San Anselmo, Mill Valley and San Rafael was standard gauge and electrified on the third rail system in 1903 and 1904. The narrow gauge steam line continued to run to Sausalito and was not abandoned in the electrified section until 1920. When Martin took over the line the rolling stock consisted of

14	Steam locomotives
49	Passenger cars
260	Freight cars
4	Ferry steamers

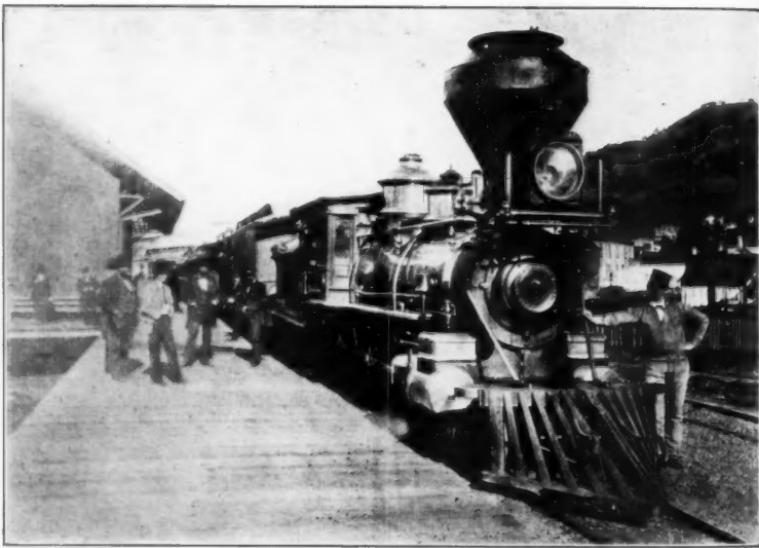
Martin increased this by 33 electric cars. The total mileage of road was $81\frac{1}{2}$ miles, of which $15\frac{1}{2}$ were electrified. In the latter part of 1904 the California Northwestern railway interests acquired the road and in 1907 the North Western Pacific became the sole owner and began to standard gauge the line to Point Reyes, and also to move the passenger terminal of the Cal. N. W. from Tiburon to Sausalito, using Tiburon for freight. From 1920 to 1929 the narrow gauge ran only from Pt. Reyes to Monte Rio and on March 30, 1929, the narrow gauge was abandoned, the rails torn up, and all cars hauled into the Pt. Reyes yards. The No. 90 was the last engine to run and it was also the last narrow gauge engine out of Sausalito in 1920. Before the advent of the automobile the narrow gauge line handled as many as 12,000 people on a Sunday and an extra ferry boat would be rented from the S. P. to handle the crowd. This is changed now and the railroad is kept busy fighting to hold its passenger business. Service has been curtailed, rail motor cars have been used on the off peak hours, and the narrow gauge has been done away with, all on account of the private car and bus. This statement not only applies to the narrow gauge line but to the main lines as well. The chief business of the railroad today is to handle commuters and the automobile ferries which are crowded to capacity on Sundays and holidays. The ferries are now operated as the Southern Pacific Golden Gate Ferries Ltd. The story of the formation of this ferry system is another chapter apart from the railroad and its rolling stock and I have only touched on it here to complete the story.

SAN FRANCISCO AND NORTHWESTERN R. R.

This road was chartered May 9, 1903, for the purpose of taking over some small railroads to enable the Santa Fe R. R. to build a road from



North Pacific Coast R. R. #2. Mason, 1874.



North Pacific Coast R. R. #6. Baldwin, 1874.

the north to San Francisco. The San Francisco and North Western is made up of the following Standard Gauge roads:

California and Northern—Eureka to Arcata.....	8.64 miles
Eel River and Eureka—Eureka to Burnell.....	22.75 miles
The California Midland—Burnell to Van Duzen River..	3.65 miles
Pacific Lumber Co.—Alta to Camp Nine	16.00 miles
Total of	51.03 miles

Most of the above roads were lumber roads. The Eel River and Eureka opened in 1884 with 3 locomotives and was built by the citizens of Mendocino and Humboldt counties to furnish railroad connections with the bay district. The principal business of this road was lumber.

The California and Northern, the California Midland and the Pacific Lumber Co., were all logging roads and were purchased by the S. F. & N. W. to form a connection with Eureka and San Francisco via the Fort Bragg and South Eastern, North Pacific Coast and the S. F. & N. W. system.

The Fort Bragg and South Eastern R. R. was incorporated in 1903 by Santa Fe interests to take over a short logging railroad and make extensions with the N. P. C. and the San Francisco and North Western. This road runs from Albion on the Coast to Novarro River, about 40 miles, and is used for lumbering. This road had one locomotive.

The San Francisco and North Western owned 6 locomotives, 4 of which had come from the Eel River and Eureka and two from the Santa Fe.

The Fort Bragg and South Eastern had one locomotive, a 2-4-2 tank type.

THE LOCOMOTIVES OF THE NORTH PACIFIC COAST R. R.

The No. 1 engine was a very small Baldwin 4-4-0 purchased by the San Rafael and San Quentin R. R., in 1870 for the 3½ mile run from San Rafael to San Quentin Point. This was S. R. and S. Q. R. R. No. 1. She was too small for the main line traffic after the N. P. C. R. R. took over the line and was kept on branch line service. This engine was sold some time around 1893 to a mining company.

The No. 2 has a very interesting history. This engine was built by Mason in 1874 and was a Forney Type 0-4-4, was double ended and ran in either direction. This was the only other locomotive purchased by the S. R. and S. Q. R. R. and was their No. 2 engine. The bell on this No. 2 was cast with a large percentage of silver coins as an experiment for tone and did have a peculiar sound, quite unlike the ordinary locomotive bell. This engine burned wood until 1907 when it was converted to oil. The No. 2 had cast iron links with brass blocks, had a boiler pressure of 125 pounds, and was very powerful. On one occasion, in October 1910, she pulled 21 narrow gauge passenger cars loaded. After the Eastland-Mill Valley branch was built in 1889 this engine was assigned to that run and remained there until the line was electrified in 1903. After that she was used on the Fairfax local until that line was

electrified about 7 or 8 years later. Every commuter in Mill Valley knew this engine and its crew and had good reason to know them. The locomotive whistle sounded all fire alarms, especially forest fires, and she pulled stumps along the right of way. There was a resort a short distance away in the redwoods and 5 minutes before leaving time the engine blew its whistle and the stage would leave the resort to connect with the train.

On one occasion the engineer set his watch ahead one hour and the guests had to leave the hotel one hour earlier than usual, much to their disgust. In wet weather the engineer would stop his train in front of the different homes to take on and let off his passengers. He did not bother about the stations. He would just blow his whistle to let the passenger know he was out in front waiting for him. As the commuters to San Francisco were mostly men, in wet weather they would ride on the engine down to the Junction where they would connect with the main line, and No. 2 would go back to Mill Valley. At Christmas time the passengers would club together and give the train crew suitable presents. Mr. Westcott showed me a Seth Thomas clock which was presented to him one Christmas. The crew, which was the same for many years, was as follows:

Conductor—J. E. Brady
Brakeman—Ira B. Cross
Fireman—H. B. Westcott
Engineer—C. L. Stocker

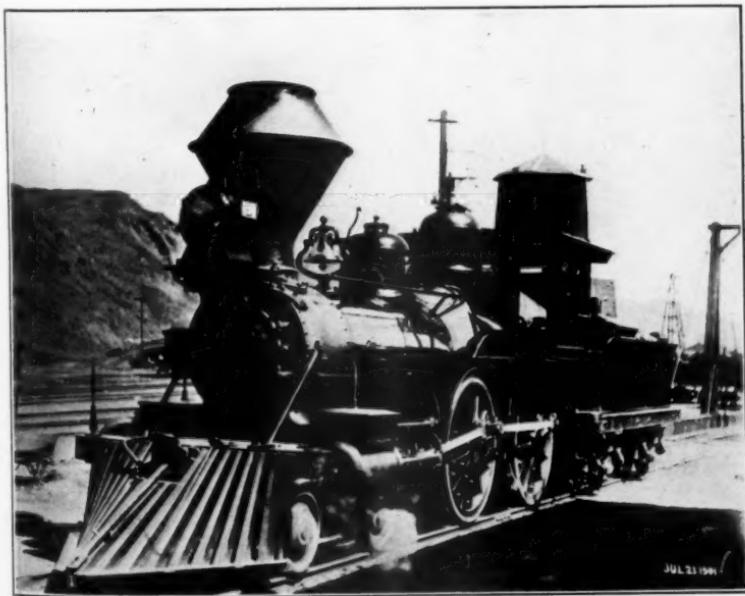
Mr. Westcott started on this run in 1892 and was on this engine as fireman, and later as engineer, until she was abandoned in 1910. Shortly after Mr. Westcott became fireman of the No. 2 he built a one inch scale working model of the 2. This model burned in the San Francisco Fire of 1906. In 1900 the 2 was burned in a fire at Tomales Bay but was repaired and kept in service. The passengers nicknamed the engine the "Jackrabbit," which seemed to fit the engine very well. The No. 2 was in service over 40 years and was abandoned when her boiler gave out.

The Nos. 3-4-5-6-7 and 9 were standard Baldwin 4-4-0 type. The No. 4 was wrecked at Waldo Point in 1894 and was very badly damaged but was repaired and kept in service until after 1903. The No. 5 was rebuilt as the No. 21 in 1900.

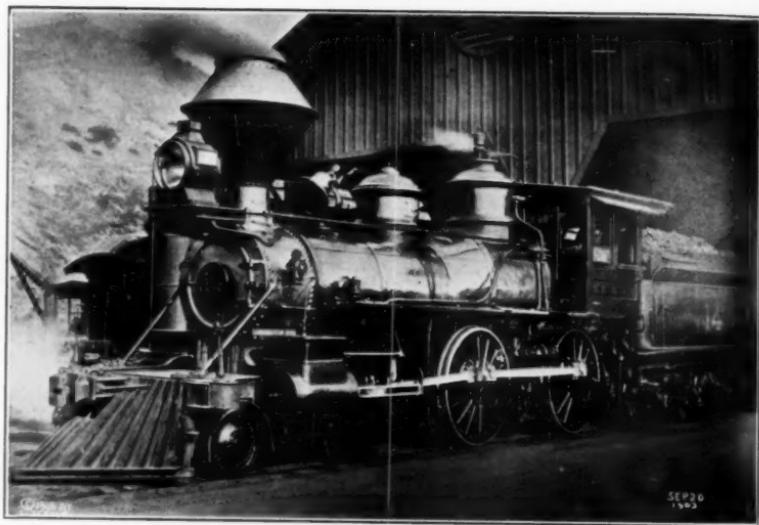
The No. 6 ran until 1918 when she was scrapped under the number N. W. P. 84. The No. 7 was sold in 1903 to the J. Dollar Lumber Co. The No. 8 was a Mason 0-6-6 type built in 1877. She was named the "Bully Boy." This engine ran on the Mill Valley line as an extra engine and also on the main line. When built she was equipped with Walschaerts valve gear with the lift shaft over the top of the boiler, and in going around curves the truck being on a swivel affected the valve gear. Mr. Thomas, the master mechanic, rebuilt the valve gear and no further trouble was experienced. This engine was operated at a speed of 45 to 50 miles an hour and with the small drivers, poor roadbed and curves it is a marvel that more wrecks did not occur. The 8 was burned in the fire at Tomales Bay in 1900 and was never repaired. The No. 9



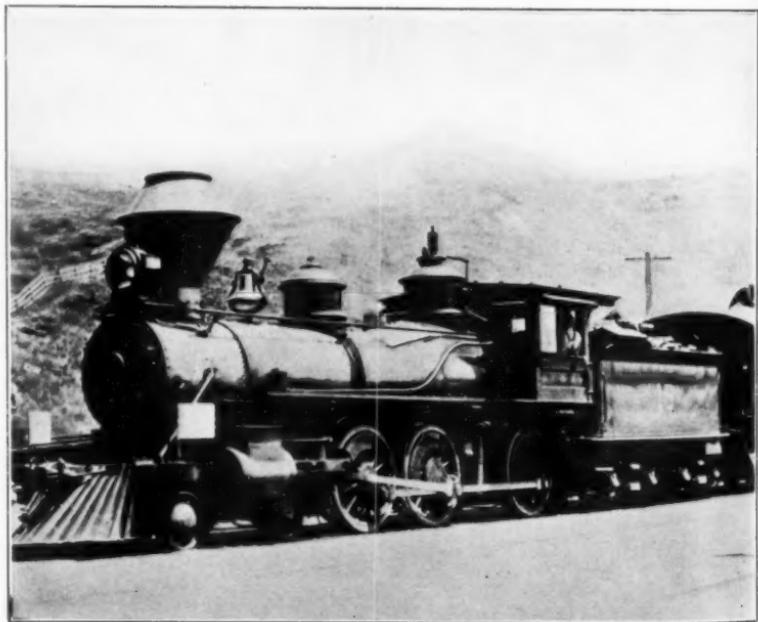
North Pacific Coast R. R. #9. Baldwin, 1875.



S. F. & N. P. #2. "W. G. Ralston." H. J. Booth, 1870.



S. F. & N. P. R. R. #14. Cooke, 1888.



S. F. & N. P. R. R. #15. Cooke, 1888.

was Mr. Latham's private engine and was named M. S. Latham. Her boiler, domes, bell, boiler lagging bands, cylinder sheathing and caps were all German silver instead of brass as was the custom of the day. Topped off with a solid mahogany cab, the engine was a beautiful machine. The 9 was wrecked in 1898 and was rebuilt as the No. 17. The Nos. 10 and 11 were 4-4-0 Baldwins built as wood burners but were converted to coal burning in 1890 as an experiment. Coal was as cheap as wood during this period and shiploads were delivered at Sausalito. The No. 10 was sold in 1895 and the 11 was converted to oil in 1907. I can find no record of a No. 12 and no one seems to recall any engine by this number so we believe that the number was held open for purchasing another 4-4-0 type.

The No. 13 was a 2-6-0, the largest engine on the run up to this time. She burned wood and, according to the old timers, plenty of it. This engine was No. 3 on the Denver and Rio Grande and was purchased in 1888 from the San Francisco Contracting Co., to whom the engine had been sold by the D. & R. G. in 1888. This was the only freight engine the road had and was used chiefly on the White's Hill section out of Fairfax. Her drivers were very small, being only 39 inches in diameter.

In 1892 and 1893, three wood burning 4-4-0 engines were ordered from Brooks. They had long smoke boxes and large diamond stacks which gave them an odd appearance. They also had a roof ventilator on the cabs. The No. 15, now the N. W. P. 90, was the last engine to run when the line was abandoned in 1929. The No. 18 was a 4-6-0, built by Brooks in 1899. She had a straight stack and burned coal. This engine pulled the San Rafael express until that line was electrified in 1904. She was rebuilt in 1900 and fitted with piston valves. While the 18 was fitted with a coal grate, she burned wood most of the time. The 18 today is at Point Reyes, Cal., under the number N. W. P. 95. With the exception of the 18, all of these engines were fitted with diamond stacks, crosshead pumps, hand brakes, link and pin couplers, and were all wood burners. After 1895 these engines were fitted with straight air and Miller couplers, also injectors. The No. 21 was the first engine on which the automatic air was installed. The freights still used hand brakes as late as 1898-1900. The No. 21 was an experimental engine designed and patented by Mr. W. J. Thomas, who was master mechanic at the time (1900). Mr. J. B. Stetson was manager of the road and the locomotive was appropriately named "Thomas-Stetson."

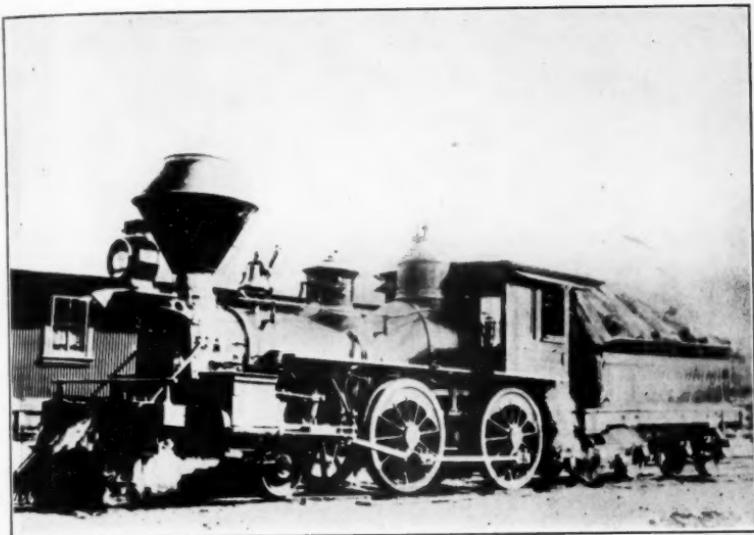
The old No. 5, a Baldwin 4-4-0, was rebuilt with American balanced slide valves, also a patent of Mr. Thomas, and I might state at this time that all of the locomotives of the N. P. C. were fitted with this balanced slide valve. The locomotive was fitted with a water tube boiler with an inclination of $\frac{5}{8}$ " to the foot. Boiler had 63, three inch water tubes, a Morrison corrugated furnace, and a large steam drum on top of the boiler proper. Working pressure was 200 pounds. Feed water was fed into this steam drum after being heated in a vertical tube feed water heater fitted in smoke box around petticoat pipe. The circulation was perfect. The boiler was fired by oil and was one of the very first engines

to use oil. This engine was built for the White's Hill grade, which was a tortuous grade for a narrow gauge line, having many sharp curves. As many accidents had occurred on this grade, Mr. Thomas built the engine to run cab first. According to all available records, this was the first locomotive ever built to operate in this fashion. The Italian State Railways built an engine to run cab first in 1907, and the Southern Pacific rebuilt the 4000 class of Mallet Compounds to run cab first about the same time. With the water tube boiler and the cab first idea, Mr. Thomas was certainly years ahead of his time. This locomotive was equipped with the automatic air brakes on the tender and also for the train, the first locomotive on this line to use the automatic air. Straight air was used on the passenger trains and the freights were braked by hand. The engineers objected to the cab on the front of the boiler and did all they could to discredit the locomotive. The shippers along the line who were loggers selling tanbark and ties and were in the habit of selling their refuse wood and slabs to the railroad for fuel, fearing that more engines might be converted to oil, threatened to boycott the road if this engine was continued on the run. The locomotive was used until 1910 and then broken up due to the opposition to its use. Mr. Thomas later became the superintendent for the Mt. Tamalpais and Muir Woods Railway, which operated 4 geared locomotives up Mt. Tamalpais. When Mr. Thomas took charge of the line it was costing \$11.50 a trip per locomotive for wood and coal and in addition many serious fires were set by the locomotives. Mr. Thomas installed smokebox feedwater heaters and converted the engines to oil, and the cost per trip for fuel was \$1.50. This road was abandoned in 1930 due to an automobile toll road built up the mountain.

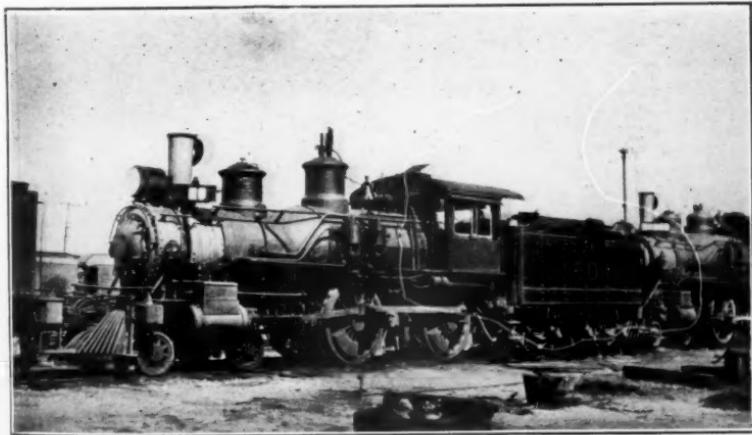
Two 0-6-0 saddle tank locomotives built for the Northwestern R. R. by Baldwin were on the list of this railroad and were broken up in 1904.

After the North Shore bought the N. P. C., 4 coal burning locomotives were purchased from the old South Pacific Coast, the No. 10-14-15 and 20. The No. 20 is still in existence as the N. W. P. No. 94, and the 14 now N. W. P. No. 93, are still at Point Reyes. The No. 94 is in running condition. With the exception of the South Pacific Coast engines and the No. 18, all of the locomotives of this road were built as wood burners. Most of the locomotives were in good condition when the line was electrified in the suburban area in 1903 to 1910, and were set aside never to be used again.

The information on the N. P. C. engines has been obtained from Mr. W. J. Thomas, the master mechanic from 1888 until 1903, Mr. W. H. Hannon, the train dispatcher prior to the North Shore, Mr. A. W. Stetson, nephew of J. B. Stetson, who was general manager until 1903, Mr. H. B. Westcott, who was a fireman on this road in 1889 and later engineer. I am quite familiar with these engines as 33 years ago I used to spend my school vacations on a stream where the present town of San Anselmo is located. There was not much of a town then. Railroading of today does not hold the interest that it did in the old wood burner days and it has been a pleasure to talk with some of the old timers and of their experiences with these old engines. If space per-

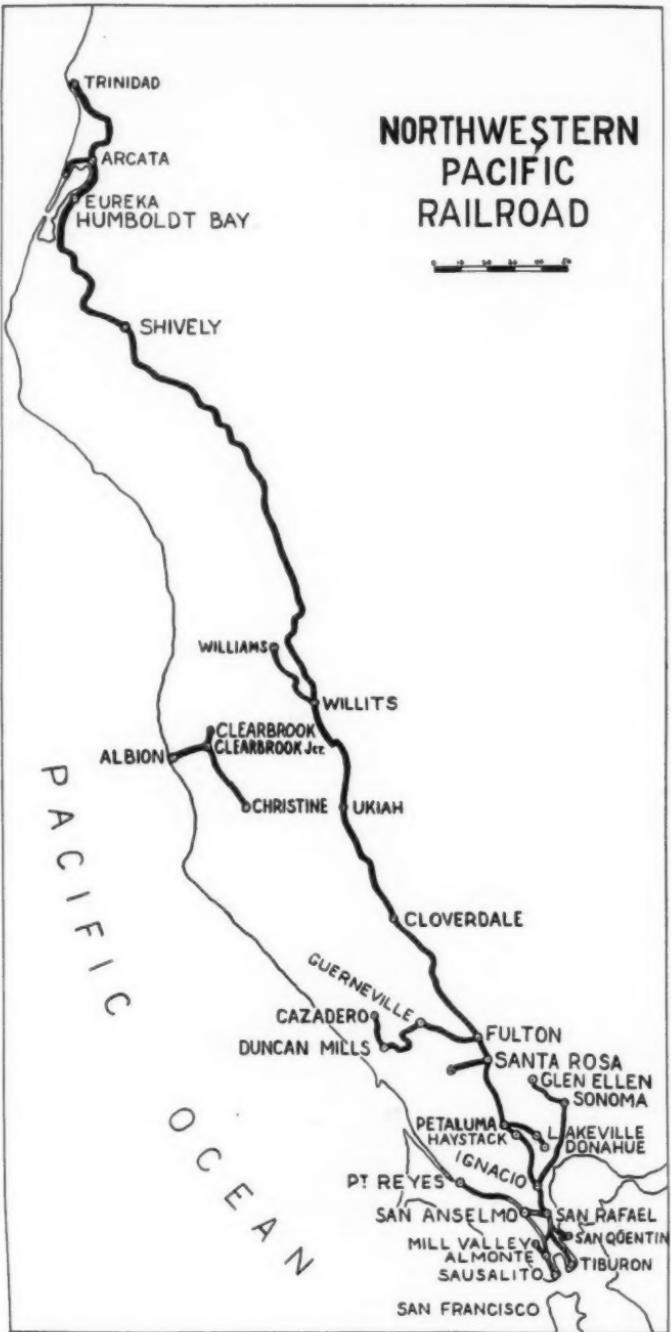


N. W. P. R. R. #4. "San Jose." Norris, 1862.



North Western Pacific R. R. #20. Rogers, 1884.

NORTHWESTERN PACIFIC RAILROAD



Courtesy Roger R. Shaw.

mitted, one could write a book on the individual crews and their engines. These old timers kept their engines shining like new and even went down on Sundays and helped the fireman do his cleaning and polishing.

LOCOMOTIVE LIST OF NORTH PACIFIC COAST R. R. 3'-0 GAUGE.

Road No.	Type	Builder	Yr. Built	Builders No.	Size Cylinders	Dia. of Drivers	Weight
1	4-4-0	Baldwin	1870	—	11x16	39	28,000
		(No. 1 on San Rafael & San Quentin R. R. Sold to mining company in South America about 1895)					
2	0-4-4	Mason	1874	537	12x16	42	38,000
		(No. 2 on San Rafael & San Quentin R. R. Named "Jackrabbit"—Scrapped after 1915)					
3	4-4-0	Baldwin	1872	3121	13x18	47	44,000
		(Scrapped after 1904)					
4	4-4-0	Baldwin	1873	—	13x18	47	44,000
		(Wrecked in 1894 Waldo Point—Scrapped after 1907)					
5	4-4-0	Baldwin	1873	—	13x18	47	44,000
		(Rebuilt in 1900 as No. 21)					
6	4-4-0	Baldwin	1874	3664	13x18	47	44,400
		(Later N. S. No. 20 and N. W. P. 84. Scrapped after 1916—Named Valley Ford)					
7	4-4-0	Baldwin	1874	—	13x18	47	44,400
		(Sold to J. Dollar Lumber Co. in 1903)					
8	0-6-6	Mason	1877	584	12x18	43	58,000
		(Named "Bully Boy"; damaged in fire at Tomales Bay 1900 and afterwards scrapped)					
9	4-4-0	Baldwin	1877	—	13x18	47	44,400
		(Named M. S. Latham. This engine was wrecked and was renumbered 17. Scrapped after 1902)					
10	4-4-0	Baldwin	1882	—	—	—	—
11	4-4-0	Baldwin	1882	—	—	—	—
		(These 2 engines were converted to coal burners in 1890 and straight stacks replaced the diamond stacks. No. 10 was sold in 1895 and No. 11 was scrapped in 1900)					
12	No locomotive of this number						
13	2-6-0	Baldwin	1875	—	14x18	39	—
		(Renumbered N. S. 13 and N. W. P. 195. Scrapped in 1910—Believed to have been No. 3 on Denver and Rio Grande R. R.)					
14	4-4-0	Brooks	1892	1885	16x20	48	62,700
		(Renumbered N. S. 14—N. W. P. 92. Out of service 1926)					

Road No.	Type	Builder	Yr. Built	Builders No.	Size Cylinders	Dia. of Drivers	Weight
15	4-4-0	Brooks	1893 (Renumbered N. S. 15—N. W. P. 90.)	2420	15x20	48	65,900
16	4-4-0	Brooks	1893 (Renumbered N. S. 16—N. W. P. 91.)	2421	15x20	48	65,900
17	No. 9		(Rebuilt after wreck—Scrapped after 1902)				
18	4-6-0	Brooks	1899 (Renumbered N. S. 18—N. W. P. 145 & 95.)	3418	16x22	54	72,200 In service until 1929. Only engine purchased as a coal burner)
21	4-4-0	Baldwin	(Rebuild of the No. 5. Ran cab first in 1900. Scrapped in 1910. Named Thomas Stetson)				
1	0-6-0	Baldwin	Saddle Tank. From Russian River Land & Lumber Co.				
2	0-6-0	Baldwin	Saddle Tank. From Russian River Land & Lumber Co. (Scrapped after 1903)				

NORTH SHORE R. R.

North Pacific Coast Engines Taken Over by North Shore.

No. 2, 3, 6, 7, 11, 13, 14, 15, 16, 18, 21. The No. 18 (N. W. P. 95) in service until 1929.

The North Shore purchased the following engines from the South Pacific Coast in 1906:

North Shore No.	South Pac. Coast No.	Type	Builder	Yr. Built	Builders No.	Size Cylinders	Dia. Driv.	Weight
10	10	4-4-0	Baldwin	1880 (Renumbered N. W. P. No. 87—Scrapped 1918)	4960	14x18	49	43,700
17	14	4-4-0	Baldwin	1884 (Renumbered N. W. P. 93—Now at Point Reyes)	—	14x18	52	41,800
19	15	4-4-0	Baldwin	1884 (Renumbered N. W. P. 86—Scrapped 1926)	—	14x18	51	42,500
31	20	4-6-0	Baldwin	1887 (Renumbered N. W. P. 144 and 94.)	8486	16x20	50	70,200 In service until 1929
20		N. P. C. No. 6—Renumbered as the No. 20 and later as N. W. P. 84.						

The narrow gauge line was abandoned March, 1929, and 6 locomotives are still at Pt. Reyes. The N. W. P. No. 90-91-92-93-94 and 95.

THE SAN FRANCISCO AND NORTH PACIFIC R. R. LOCOMOTIVES.

The first locomotive that was used on the Donahue lines was the "San Jose" Locomotive No. 2 on the San Francisco and San Jose R. R. It was a small Norris and was used until 1923 when it was scrapped after a service of 61 years. The Nos. 2-3-4-5-6 and 11 were all 4-4-0 and were built by the H. J. Booth Co. of San Francisco.

The Nos. 7-8-9-10-12-13-14-17 and 24 were all 4-4-0 and were built by Rogers, Baldwin and Grant. The Nos. 18-19-20-21-22-23 and 25 were all 4-6-0 type. The locomotives were all named up to and including the No. 18. The No. 3 was sold in 1920 to a logging company. The numbers 9-10-12-13-14-17-19-20-21-22-23-24-25 are still in service under various N. W. P. numbers. The No. 10 has been rebuilt with piston valves. The No. 15 was scrapped in 1929. The No. 16 was destroyed in a wreck at Ignacio in 1910, and the No. 18 was scrapped in 1930. The No. 14 is at the present time being used as an auxiliary boiler. These locomotives all burned wood, had oil headlights, wood cabs, diamond stacks and link and pin couplers when first built. The engines built prior to 1890 were not equipped with air. These locomotives were converted from wood to oil after the N. W. P. bought out the system in 1907, and many other improvements were made.

In 1923 the No. 7 and 8 were used in the motion picture "The Iron Horse," which showed the building of the Union Pacific R. R.

The S. F. N. P. No. 99 was of peculiar construction, had an 0-4-0 wheel arrangement, on the front of the engine was a winding drum used for hauling up logs to load cars the same as a donkey engine. After loading the logs it hauled them to the mill. The engine weighed complete about 15 tons. Boiler pressure 125 pounds. This engine ran for years on the Guerneville Branch, and the last heard of it it was working on a jetty at Eureka.

LOCOMOTIVE LIST OF SAN FRANCISCO AND NORTH PACIFIC R. R.

Road No. Name	Type	Builder	Yr. Built	Builders No.	Size Cylinders	Dia. Drivers	Weight
1 San Jose	4-4-0	Norris (Built for SF & SJ RR.)	1862	1009 Later NWP No. 4.	13x22	57	41,300 Scrapped 1923)
2 W.J.Ralston	4-4-0	H.J.Booth (Later became NWP No. 6.)	1873	— Scrapped 1913)	14x24	64	55,700
3 C.H.Downing	4-4-0	H.J.Booth (Later became NWP No. 7.)	1870	— Sold 1920)	14x24	64	55,700
4 Geyser	4-4-0	H.J.Booth (No data)	1870	—	14x24	64	55,700
5 Santa Rosa	4-4-0	H.J.Booth (No data.)	1873	— Scrapped 1900)	14x24	64	55,700
6 Cloverdale	4-4-0	H.J.Booth (Later became NWP No. 11.)	1878	— Scrapped 1914)	16x24	63	63,700

Road No.	Name	Type	Builder	Yr. Built	Builders No.	Size Cylinders	Dia. Drivers	Weight
7	Petaluma	4-4-0	Grant	1876 (Later became NWP No. 12.)	— Scrapped 1926)	16x24	63	63,700
8	San Rafael	4-4-0	Baldwin	1881 (Later became NWP No. 8.)	— Scrapped 1925)	15x24	63	62,100
9	Healdsburg	4-4-0	Grant	1883 (Later became NWP No. 9.)	— Still in service)	16x24	59	66,700
10	Marin	4-4-0	Grant	1883 (Later became NWP No. 10.)	— Still in service)	16x24	59	66,700
11	Ukiah	4-4-0	H.J. Booth	1882 (No data. Scrapped 1910)	— —	—	—	—
12	Peter Donahue	4-4-0	Rogers	1884 (Later NWP No. 19. Still in service)	3305	18x24	61	80,200
13	Tom Rogers	4-4-0	Rogers	1884 (Later NWP No. 20. Still in service)	3306	18x24	61	79,700
14	Tiburon	4-4-0	Cooke	1888 (Later NWP No. 14. Still in service)	— —	16x24	62	79,600
15	Eureka	4-6-0	Cooke	1888 (Later NWP No. 102. Scrapped 1929)	— —	18x24	55	91,700
16	Lytton	4-6-0	No record	— (Later NWP No. 18. Destroyed in wreck 1910)	— —	16x24	57	88,000
17	Vichy	4-4-0	Rogers	1889 (Later NWP No. 17. Still in service)	4155	17x24	63	79,000
18	Skaggs	4-6-0	Rogers	1889 (Later NWP No. 101. Scrapped 1930)	4212	16x24	57	89,500
19	No longer named	4-6-0	Baldwin	1900 (Later NWP No. 110. Still in service)	17759	19x26	57	116,800
20	"	4-6-0	Cooke	1901 (Later NWP No. 103. Still in service)	3304	18x24	57	108,800
21	"	4-6-0	Cooke	1902 (Later NWP No. 105. Still in service)	25620	19x26	57	117,000
22	"	4-6-0	Baldwin	1904 (Later NWP No. 107. Still in service)	23933	19x26	57	120,500
23	"	4-6-0	Baldwin	1904 (Later NWP No. 108. Still in service)	23934	19x26	57	120,500
24	"	4-4-0	Baldwin	1904 (Later NWP No. 21. Still in service)	24035	18x24	69	104,700
25	"	4-6-0	Baldwin	1902 (Later NWP No. 106. Still in service)	25621	19x26	57	117,000
99	"	0-4-0	No data	— —	— —	— —	— (Sold)	30,000

**LOCOMOTIVE LIST OF CALIFORNIA NORTHWESTERN R. R.
WHEN TAKEN OVER BY N. W. P. IN 1907.**

This road leased the San Francisco and North Pacific in 1898 and numbered their engines following those of the leased road. No. 1 to 25. See S. F. & N. P. list.

Road No.	Type	Builder	Year Built	Builders No.	Size Cylinders	Dia. Drivers	Weight
1 & 30	4-6-0	Baldwin	1900 (Later N. W. P. 109.)	18179	19x26	57	116,800
31	4-6-0	Cooke	1901 (Later N. W. P. 104.)	3303	18x24	57	108,800
32	Geared	Lima	1904 (Later N. W. P. 251.)	909	13½x15	40	213,500
33	2-6-2 tank	Baldwin	1903 (Later N. W. P. 201.)	22446	17x22	47	105,500
34	2-6-2 tank	Baldwin	1903 (Later N. W. P. 202.)	22447	17x22	47	105,500

The No. 32, now N. W. P. 251, was built for the Northwestern Redwood Lumber Co. in 1904 and was at one time C. N. W. No. 1. The No. 30 was also at one time numbered the No. 1 and became No. 30 after the Cal. N. W. leased the 25 locomotives of the S. F. & N. P.

LOCOMOTIVE LIST OF NORTH WESTERN PACIFIC, 1916.

Road No. Std. Gauge	Type	Builder	Year Built	Size Cyls.	Dia. Drivers	Total Weight	W.P.
1	4-4-0	Baldwin	1884	17x22	49	45,800	125
2	"	"	1883	12x22	50	49,000	125
3	"	"	1887	14x24	57	57,800	145
4	"	Norris	1862	13x22	57	41,300	140
7	"	H. J. Booth	1870	14x24	64	55,700	140
8	"	Baldwin	1881	15x24	63	62,100	145
9	"	Grant	1883	16x24	59	66,700	140
10	"	"	1883	16x24	59	66,700	140
12	"	"	1876	16x24	63	63,700	140
13	"	Baldwin	1878	16x24	56	66,600	145
14	"	Cooke	1888	16x24	62	79,600	145
15	"	Baldwin	1878	17x24	61	71,000	140
16	"	Penn. R. R.	1880	16x24	59	75,700	140
17	"	Rogers	1889	17x24	63	79,000	140
19	"	"	1884	18x24	61	80,200	165
20	"	"	1884	18x24	61	79,700	165
21	"	Baldwin	1904	18x24	69	104,700	180
22	"	Schenectady	1908	18x24	69	120,500	180
23	"	"	1908	18x24	69	120,500	180
51-52-53-54	"	"	1914	19x26	63	136,000	200

LOCOMOTIVE LIST OF NORTH WESTERN PACIFIC, 1916.

Road No. Narrow Gauge	Type	Builder	Year Built	Size Cyls.	Dia. Drivers	Total Weight	W.P.
84	4-4-0	Baldwin	1874	13x18	47	44,400	140
85	"	"	1884	14x18	52	41,800	140
86	"	"	1884	"	51	42,500	135
87	"	"	1880	"	49	43,700	135
90	"	Brooks	1893	15x20	48	65,900	140
91	"	"	1893	"	48	"	140
92	"	"	1892	16x20	48	62,700	150
94	4-6-0	Baldwin	1887	16x20	50	70,200	150
95	"	Brooks	1899	16x22	54	72,200	170

Road No. Std. Gauge	Type	Builder	Year Built	Size Cyls.	Dia. Drivers	Total Weight	W.P.
101	4-6-0	Rogers	1889	16x24	57	89,500	140
102	"	Cooke	1888	18x24	55	91,700	140
103	"	"	1901	18x24	57	108,800	180
104	"	"	1901	"	"	"	180
105-106	4-6-0	"	1902	19x26	"	117,000	"
107-108	"	Baldwin	1904	"	"	120,500	"
109-110	"	"	1900	"	"	116,800	"
111-114	"	Schenectady	1908	"	"	123,800	"
130-133	"	"	1910	20x28	63	152,400	200
134-135	"	"	1912	"	"	158,200	"
136-141	"	"	1914	"	"	158,000	"
180-181	"	"	1914	21x28	57	171,200	"
201-202	2-6-2-T	Baldwin	1903	17x22	47	105,500	160
225	2-4-2-T	"	1903	12x18	"	43,660	125
227-228	0-6-0	Schenectady	1910	19x24	50	124,500	180
229-231	"	"	1914	19x24	50	133,800	180
251	Shay	Lima	1904	13 1/2x15	40	213,500	175
351	2-6-0	Baldwin	1887	13x22	39	45,700	130
352	2-6-0	"	1884	17x24	55	76,600	150
353-354	2-6-0	"	1908	18x24	57	114,500	175

LOCOMOTIVE LIST OF SAN FRANCISCO AND NORTHWESTERN R. R. WHEN TAKEN OVER BY N. W. P. IN 1907.

Road No.	Type	Builder	Year Built	Builders No.	Size Cylinders	Dia. Drivers	Weight
1	4-4-0	Baldwin	1883	—	12x22	50	49,000
		(Ex E. R. & E. R. No. 1—Later N. W. P. No. 2—Scrapped)					
2	4-4-0	Baldwin	1884	7400	17x22	49	45,800
		(Ex E. R. & E. R. No. 2—Later N. W. P. No. 1—Scrapped)					
3	2-6-0	Baldwin	1887	8776	14x24	57	57,800
		(Ex E. R. & E. R. No. 3—Later N. W. P. No. 3 & 351)					
4	4-4-0	Penn.R.R.	1880	—	16x24	59	75,700
		(Ex E. R. & E. R. No. 4—Later N. W. P. 16—Scrapped 1931)					
5	2-6-0	Baldwin	1884	—	17x24	55	76,600
		(Ex A. T. & S. F. No. 0179—Later N. W. P. 151 & 352)					
6	4-4-0	Baldwin	1878	—	16x24	56	66,600
		(Ex A. T. & S. F. No. 07—Later N. W. P. No. 13—Still in service)					

LOCOMOTIVE LIST OF FORT BRAGG AND SOUTHEASTERN.

1	2-4-2 tank	Baldwin	1903	—	12x18	47	43,660
		(Later became N. W. P. 225)					

A BRIEF OUTLINE OF H. J. BOOTH & CO., OF SAN FRANCISCO, A PIONEER LOCOMOTIVE BUILDER OF THE PACIFIC COAST.

In 1849 Peter Donahue and his brother James founded a blacksmith shop at 1st and Mission Sts. With two bellows and a forge they melted and cast the first iron castings in California.

A few years later this firm became known as the Union Foundry, and in 1862 was called the Donahue Union Iron & Brass Foundry. In 1864 H. J. Booth came into the company and it was then called the Donahue, Booth & Co. In 1866 it became the H. J. Booth & Co. In 1865 two 30 ton locomotives were built, one the "California" for the San Francisco & San Jose Railroad, a railroad which was reorganized by P. Donahue and sold to Southern Pac. in 1870, and the other, the "A. A. Sargent" for the Central Pacific R. R., later S. P. No. 1214.

In 1868 and 1869 the locomotives "Lyon," "Ormsby" and "Storer" were built for the Virginia & Truckee R. R. From 1870 to 1882 six locomotives were built for the railroads of the Donahue system north of the Bay, the No. 2, 3, 4, 5, 6 and 11. The records show that 13 locomotives had been built by this firm up to 1870, one of which had weighed 51 tons. It is not known how many engines were built up to 1884 when the plant removed to its present location in the Potrero District and became a shipbuilding concern as all of the records were destroyed in the San Francisco Fire of 1906.

Geo. W. Prescott and Irving M. Scott came in with Booth in 1870 and the firm name became Prescott, Scott and Scott, later known as the Union Iron Works, and at present the Bethlehem Shipbuilding Corp., Ltd.

Under the name of the Union Iron Works this firm built practically all of the engines for the San Francisco cable car lines, also electric generating plants for the electric lines. This firm built almost all of the mining machinery used on the Comstock lode in Nevada and also all the stamp mills and other mining machinery for California and other places. Many famous ships were built by this firm, the battleship Oregon, cruisers Charleston, San Francisco, etc., and during the World War many submarines, destroyers and merchant ships.

The Iron Horse and the Days of Gold

By GILBERT H. KNEISS

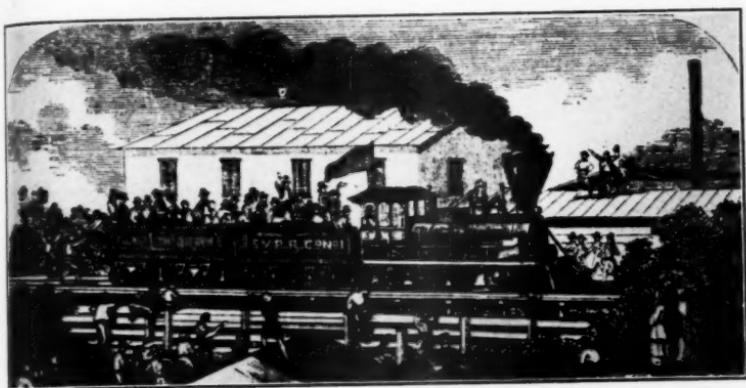
IN 1839, the somnolent Arcadia of Mexican California was visited by an ex-officer of the Swiss Army who was to play an important part in the impending transformation of that land. Captain John Augustus Sutter landed in Monterey, the possessor of a rather shady past, which he kept to himself, and very little else. Like many of his type, he was of charming personality, and was able to work himself into the good graces of the hospitable, pleasure loving Californians. He announced that it was his desire to establish a colony on the Sacramento River which, he assured Governor Alvarado, would be a defense against the Indians and an extension of the glorious dominion of Mexico. Despite these specious sentiments, there is little doubt but that his real interest was more the progress of Sutter than that of Mexico.

After going through the formality of becoming a Mexican citizen, he secured a grant of about a hundred square miles in the Sacramento Valley, and with three companions rowed up the river from San Francisco and founded New Helvetia. Sutter's Fort, as it became commonly known, was built at the junction of the American and Sacramento Rivers, midway between the Sierra Nevada Mountains and the Pacific Ocean. As Sutter offered an hospitable welcome to settlers, the community grew into a prosperous trading post, and by 1847 reported a population of 287 whites, 479 "tame" Indians, and 16 half-breeds, Hawaiians, and negroes.

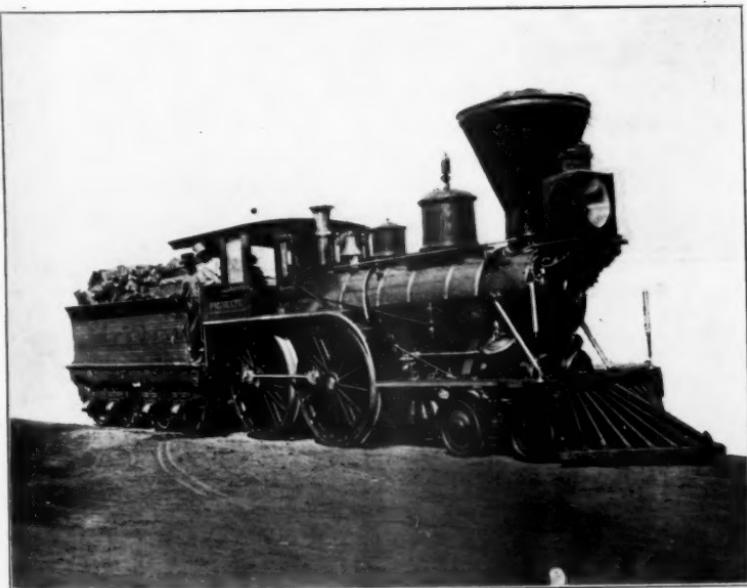
It was in this year that Sutter sent John W. Marshall up the American River to choose a site for the saw mill that played such an important part in starting the California gold rush. Although, through the irony of fate, the discovery of gold brought ruin to Sutter, as his men deserted him and the newcomers pillaged his property, it converted New Helvetia into the metropolis of Sacramento. It was the natural point for the shipping of supplies to the mines and the arrival of immigrants from the eastern states, who came in steadily increasing numbers with the ceding of California by Mexico.

The population grew with amazing speed. By 1850, the Federal Census gave Sacramento 6820 inhabitants, and the next few years saw an even faster growth. The number of miners in the mountains showed a corresponding increase, and an extensive freighting business sprang up to furnish them with supplies. The procession of teams was almost continuous, and the need for better transportation facilities became apparent to a few of the more wide-awake citizens. The moving spirit of this group was Colonel Charles T. Wilson, an Argonaut from Maine.

Colonel Wilson arrived in California in December, 1849 and lost no time in getting into the transportation business. In 1850, he operated a trading steamer on the upper waters of the Sacramento River, and a little later built a plank toll road in San Francisco. During his visits



The Excursion of Aug. 17, 1855 to 17th St.
From a cut in the "Sacramento Union" of Jan. 1, 1856.



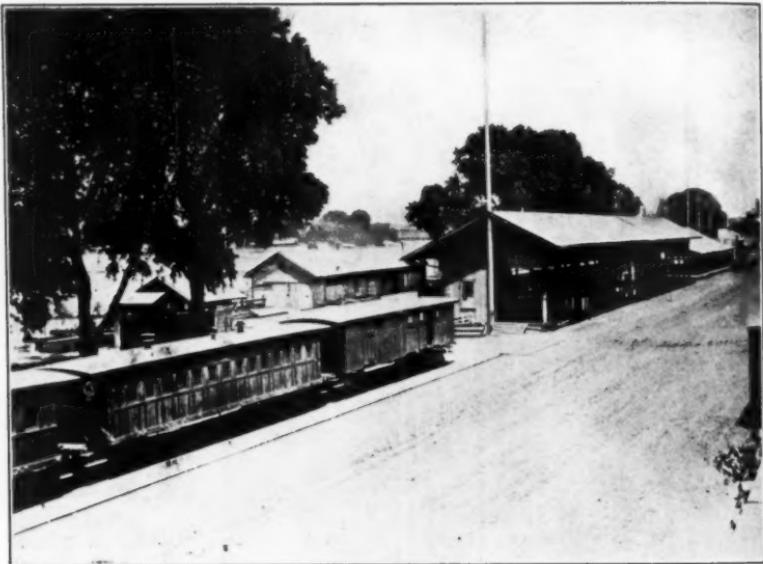
Sacramento Valley R. R., #1—"Pioneer." Globe Works, 1849.
Formerly the "C. K. Garrison." First Locomotive to be Used in California.

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Sacramento Terminal of the Sacramento Valley R. R. in the Early Sixties.

to Sacramento, he observed the slow and tedious forms of transportation in vogue, and being familiar with the possibilities of railroads from his former life, decided that there was a definite place for the Iron Horse in California.

He interested a few other far-sighted individuals, and on August 4, 1852, the Sacramento Valley Railroad Company was organized with Wilson as president, and the sum of \$5000 subscribed toward the capital stock of \$1,500,000. It was proposed to build from Sacramento to Mountain City (at present Marysville), a distance of about fifty miles. Mr. W. B. Foster, the chief engineer of the State of Pennsylvania, was elected chief engineer of the company, and Colonel Wilson was commissioned to go East and try to raise additional capital for the road.

The promoters of the Sacramento Valley Railroad did not have to weigh the merits of the locomotive against the horse, or consider the use of sails, as did their predecessors in the East. Although less than a quarter of a century old, the railway had passed the experimental stage, and except for size and later day improvements, there was not a great deal of difference between the Iron Horse of the fifties and his modern descendant. Locomotives sported large funnel-shaped smokestacks, much polished brassware, and fancy scrollwork was tacked on wherever possible. They were known by names instead of numbers. Passenger cars had hard seats and harder springs, and were heated with wood stoves and lighted with oil lamps. Refinements were lacking. But the railroad had arrived—it was a dependable and accepted means of transportation, although the whistle of the locomotive had yet to be heard west of the Mississippi.

Foster for some reason or other not proving available, Wilson also desired to find a chief engineer while in the East. On the recommendation of Governor Seymour of New York, he engaged a young man who was to have an outstanding place in California history, Theodore D. Judah. He then managed to interest some capital in the enterprise, and the two departed for California via Nicaragua.

Judah was born in Connecticut in 1826. Choosing engineering as his life work, he attended the Rensselaer Polytechnic Institute of Troy. He did not graduate from this institution, but left to enter active engineering work on the construction of the Troy and Schenectady Railroad. He was later connected with other railroads and the Erie Canal, and by 1854 he had earned, at the age of twenty-seven, a reputation that caused him to be recommended to Colonel Wilson on such high authority.

Wilson and Judah arrived in Sacramento in May, 1854, and Judah proceeded at once to survey the proposed route. Fresh from the creation of the Niagara Gorge Railroad, his present task impressed him as being almost elemental. No engineering feats were necessary. The ground was almost flat, the line was almost straight, and there were no cuts or embankments of any importance required. Estimating the cost of the first twenty miles of road at \$660,000 and the probable yearly receipts at something over \$2,000,000, he grew enthusiastic. To quote from his first report :

"To those persons residing in California where money commands 3 to 8 percent per month, where stage routes pay from 5 to 10, and where Steamboat associations, after paying high prices to buy in boats, declare dividends of 6 $\frac{1}{2}$ percent the first month, it will not appear surprising that a Railroad, the most perfect and economical mode of public conveyance in this particular locality, should be vastly profitable. But to those persons accustomed to the management and working of Roads in the States (few of which pay over 7 percent per annum), the estimated profits of the Road will be viewed with astonishment."

He also commented on the fact that inexhaustible supplies of granite lay along the proposed route, only a little over a hundred miles from San Francisco (granite was then being shipped in from China), and that "from Patterson's to Negro Bar the whole country is impregnated with gold, and it is not at all unlikely that the excavations will discover many rich claims."

In the absence of any other data, Judah based his estimate of probable freight and passenger traffic on a count of the trucks and stages then handling the business, and the expectation that the railroad would displace all other forms of transportation. He later discovered that his estimated cost for the line was much too low, and refigured it at \$870,000 for the first twenty miles.

The survey being finally completed and the right-of-way acquired, a contract was let on November 24th to a well known eastern firm of railroad builders, Robinson, Seymour, and Company. The agreement called for the building and equipping of forty miles of railroad in first class running condition in consideration of the sum of \$1,800,000. \$800,000 of this amount was to be taken in capital stock at par, and \$700,000 as 10% twenty year bonds. This amounted to \$45,000 per mile and agreed closely with Judah's second estimate of \$43,500 per mile.

On February 12, 1855, work began in reality. One hundred men were put to work grading and two weeks later the number was doubled. The contractors were turning away men who offered to work for thirty dollars a month. Subcontracts for grading were let to residents along the line, and in one case at least, Judah's belief that gold would be discovered proved correct, although not to the extent of "several rich claims." A Mr. Anderson who lived about twenty miles from Sacramento took the contract for the section passing his house. It was the heaviest piece of grading on the road, and consisted of a seventeen foot cut through a bluff and a fifteen foot embankment. Mr. Anderson prospected a boulder stratum in the bluff, and figured that it would yield about one cent to the bucket in gold, or an average of 80c per cubic yard of excavation.

Accordingly, he evolved a method of railroad grading that has probably never been resorted to before or since. He erected a long sluice from the top of the bluff to the site of the embankment. The top dirt was shovelled into the sluice, and with the aid of a good deal of water from the near-by American River, carried to the ravine where it was to be used. When "pay dirt" was reached, ripples were placed in the sluice, and Mr. Anderson recovered enough gold to pay for the whole job and leave his fee clear profit. In the words of a contemporary journalist, the method was "purely Californian."

Grading continued, and in June, rails and rolling stock began to arrive in San Francisco via clipper ship around the Horn. Unfortunately, financial stringencies began to delay the work. California was going through a fiscal panic, and much of the stock was forfeited for non-payment of assessments. On July 30th, the San Francisco *Alta California* carried an editorial outlining the progress of the work and urging investors to get behind the project. It said in part:

"Grading and bridges are complete almost to Negro Bar. Rails are now here, and fifty cars and three locomotives are on the way. Ties are already on the ground. We may soon expect to hear the Iron Horse snorting up and down the Sacramento Valley, leaving the ox wagon and the muleteam only as things of memory Freight from San Francisco to the mines is enormous. Several heavy laden steamers, besides sailboats, are leaving daily. Freight from Sacramento to the mines is using 700 teams. It seems that this is a field for capital such as exists nowhere else in the world."

In spite of such appeals, it was found necessary to modify the original contract to include only the first twenty-two miles of road.

During the difficulties, new officers were elected, and the company found itself in the hands of Commodore C. K. Garrison, president; and William T. Sherman, who was a decade later to give the world a favorite definition of war, as vice-president. Garrison was a New Yorker, born in 1809, who had grown up in the transportation business. At thirteen, he was engaged in the "carrying trade" on the Hudson River. At nineteen, he was building steamships in Canada. When gold was discovered in California, he went to Panama and established an extremely successful commission and banking house. In 1852, he came to San Francisco as agent for the Nicaragua Steamship Company, and such was his personality that six months after his arrival, he was elected mayor of San Francisco. His term was noted for his suppression of the attempts of certain individuals to fence off portions of the city streets for their own uses, a struggle that was marked by the greatest excitement. From that time on, Garrison was likely to be found holding the reins of any new project started on the Coast.

Construction progressed in spite of distractions, and by the eleventh of August, enough rail had been laid so that Judah and three friends treated themselves to a handcar ride of several hundred feet, the first railroad trip west of the Rockies. A week or so later, some of the rolling stock had arrived, and the contractors invited a party of two hundred to attend a "short excursion behind a locomotive" to 17th Street, the "present eastern terminus of the road"—a distance of about two miles. The locomotive "Sacramento" was coupled to three flat cars, and the two hundred guests distributed themselves over cars and tender. According to the Sacramento *Union's* reporter, "the transit was made smoothly and pleasantly, to the manifest pleasure of the participants, who cheered occasionally as the train proceeded, especially when passing knots of outsiders who were sprinkled along the route." The word "outsiders" shows how the reporter felt.

It began to look like the railroad would actually become a reality, and the wary capitalist of San Franciseo began to get slightly interested. Two or three days after the jaunt of the select two hundred, the boat from San Franciseo brought a large delegation of "solid men" (contemporary slang for what we now call "big butter and egg men") to inspect the railroad. They were accompanied by a journalist from the *Alta California* who has preserved the occasion for posterity. The first thing he noticed was the difference in temperature between the two cities:

"The heat was terrible for a man accustomed to the cool and grateful winds of the Bay City, and the 'solid men' melted, and you might have heard them exclaim as they panted for air, 'O, that this too solid flesh would melt.'"

However, they all survived, and the next morning none were missing from the group that appeared at the railroad and mounted the flat cars for an inspection of the line.

"Away we sped right merrily, being forcibly reminded of the times to come when the scream of the steam whistle was hourly heard and a trip in the cars was a luxury that might daily be enjoyed."

The track being still only two miles long, they soon came to a halt, and it was necessary to complete the inspection with carriages.

"It was three o'clock in the afternoon when we got on our way toward the place rejoicing in the euphonious name of Negro Bar. The day was hot and the dust was so thick that it could be felt. Our party consisted of sixteen all told, and we were obliged to scatter along at remote distances in order that the dust which was raised by our carriages might blow off or get settled before the next came along. But having a gay and lively team, our party frisked off at a lively jog, and two hours and a half by the watch brought us to Negro Bar . . . twenty-two miles from Sacramento. We were in advance of the balance of the crowd, having a fancy team, and Jeju himself being our postillion. Others came straggling in, each ashamed of being behind. But they were all alike and on an equality in one thing. Each man was so covered with dust that his own mother could not have known him, for all were about the color of the Ethiop, and it may have been for some such reason that the place got its dark name originally."

The "solid men" felt better after a liberal use of soap and water, and dinner at Meredith's Hotel. They spent the night at Negro Bar, which was soon to lose its colorful name for the more prosaic one of Folsom. But in spite of all the publicity work, financial difficulties continued, becoming so acute at one time that the contractors attached all the property of the road. The company succeeded in settling out of court.

The end of track was daily nearing Negro Bar, and excursions were being run on the slightest provocation. The naive delight of a simpler age with the new Iron Horse is brought home to the present day reader of contemporary accounts in the journals of the time. On November 27th, the *Alta California* reported that:

"by special invitation, the corps editorial of the city enjoyed the pleasure of an excursion over our railroad on the new and powerful locomotive named

SACRAMENTO VALLEY RAILROAD.

SUMMER ARRANGEMENT.

On and after the 15th of March, the Trains of the Sacramento Valley Railroad will leave as follows, viz:

PASSENGER TRAINS WILL LEAVE

**Sacramento daily..... at 7 $\frac{1}{2}$, A. M., and 3 $\frac{1}{2}$, P. M.
Folsom daily..... at 7 $\frac{1}{2}$, A. M., 12 M., and 5, P. M.**

On Sunday, besides the above, there will be from Sacramento a 10, A. M., train.

FREIGHT TRAINS WILL LEAVE

**Sacramento..... at 7 $\frac{1}{2}$, A. M., and 2, P. M.
Folsom..... at 7 $\frac{1}{2}$, A. M.**

\clubsuit "The 7 $\frac{1}{2}$ A. M. train will take through freight only.

\clubsuit No freight transported on Sundays.

STAGES

Connect with the 7 $\frac{1}{2}$ A. M. trains out for

NEVADA,	GRASS VALLEY,	AUBURN,
IOWA HILL,	FOREST CITY,	DOWNSIEVILLE,
ORLEANS FLAT,	OPHIR,	GOLD HILL,
ILLINOISTOWN,	YANKEE JIM'S,	GREENWOOD VALLEY
GEORGETOWN,	MORMON ISLAND,	COLOMA,
EL DORADO,	DIAMOND SPRINGS,	PLACERVILLE,
PRAIRIE CITY,	MICHIGAN BAR,	COOK'S BAR,
WALL'S DIGGINGS,	LIVE OAK CITY,	ARKANSAS DIGGINGS,
WILLOW SPRINGS,	DRYTOWN,	AMADOR,
SUTTER,	JACKSON,	FIDDLETOWN.

And all the Intermediate Places.

RETURNING—the Stages will connect with the 12 M. train in arriving at Sacramento, in time for the San Francisco boats.

\clubsuit For freight or passage apply at the Railroad Stations.

J. P. ROBINSON, Superintendent.



"Sacramento Valley R. R., "Mr. A. Proctor," No. 3, L. & M. C."

C. K. Garrison, in consideration of its supposed qualities of being fast, safe, and high pressure.

"Leaving the foot of R Street, Commodore Bishop, chief locomotive engineer, jumped us over the track in superb style—outspeed a smart shower of rain—dashed past houses and crossings as though we were astride the tail of a comet, and landed us safely at the terminus fifteen miles from town in twenty-five minutes. Think of that, ye slow San Francisco coaches! Dead ahead, through the cut, the foothills of the Sierras seemed within grasp—their lofty summits already capped with snow. . . . A more captivating and exhilarating jaunt could not be given to a Sacramento '49er, and the sober judgement of anyone, no matter whether he is an old or new comer, cannot predict the mighty influence this single road is destined to have upon the interests of the dwellers at its termini or along its route, as well as upon the entire state. The energy of the contractors is surprising, even in this fast country where one learns to sleep with one eye open so as not to lose sight of anything that takes place."

It was about this time that the first railway accident west of the Rockies occurred. An intoxicated Frenchman, whose name has not been preserved, achieved the distinction of being the first casualty by going to sleep with one leg on the track, and having it neatly removed by a locomotive.

By Christmas, the rails had almost reached Folsom, where there was great activity under way toward providing station facilities. In addition to the railway terminal, stables were being erected to take care of hundreds of horses belonging to the California Stage Company. Twelve stage lines were to concentrate at Folsom with the opening of the railroad. Meredith's Hotel was also making extensive additions and planning a grand celebration on the occasion of the formal opening of the road.

Washington's Birthday was the date chosen for this event, happily giving the entire population of Sacramento and the other near-by communities a chance to join in the festivities, an opportunity which very few neglected. A faded copy of the San Francisco *Herald* preserves the vivid picture:

"On the morning of the twenty-second not a cloud interfered with the flood of golden sunshine which clothed everything animate and inanimate in Sacramento. The air was soft, Southern-like, and balmy—in fact a complete realization of the true California day, and from the heavy crowds gathered together in the vicinity of Third and the R Street levee on which the railroad runs out of town, it might have been fairly presumed that all hands were resolved on making the most of the occasion—a free one by the way—and that the entire population of the Levee City were bent on removal to Folsom. The first train, consisting of all the passenger cars in the service of the company together with a couple of platform cars, moved off, drawn by the powerful locomotive 'Sacramento' at precisely eleven o'clock, very much to the chagrin and annoyance of a large body of the 'great unwashed' including quite a number of the delegation from San Francisco, who having taken possession of a long train of platform cars in the rear of those attached to the passenger train, never once thought of examining the couplings erroneously supposed to connect the whole line of cars together."

The "chagrin and annoyance" of the San Francisco delegation, which must have included our *Herald* reporter, was soon dispelled, the locomotive "Nevada" appearing and making fast to the line of platform

cars. They then departed in the direction of Folsom. The account continues:

"Two things of a disagreeable nature contributed to mar the pleasure of the trip at its outset. The wind blew gently of itself, but the rushing of the train lent it the force of a hurricane, and the cars being unprotected and roofless, it was with difficulty that the passengers could 'face the music', while the possession of hats or caps was only maintained by a determined and enduring holding on to those articles. Somebody who has written a book reviewing the follies and vices of Americans has very justly and severely characterized us as a 'spitting people.' Of a verity, had the author referred to been a passenger by the train we have reference to, he would have had many and disgusting evidences of the truth of the reputation he has ascribed us. We object to tobacco chewing in the abstract, for reasons unnecessary to be recapitulated, but when as was the case on the present occasion, the practisers of the abomination have no more regard for the comfort of fellow voyagers, or even for the commonplace decencies of life, than to be incessantly ejecting profuse jets of the nauseous fluid only to be carried by the wind broadcast over the persons and habiliments of those in their immediate vicinity, simple objection rises into thorough abhorrence, and language is scarcely severe enough to denounce the positive outrage."

One has a vision of the suffering reporter, surrounded by a crowd of husky, expectorating forty-niners and, while afraid that any audible protest on his part would not be favorably received, hoping fervently that they would all read his story in tomorrow's paper. The locomotive "Nevada," the platform ears, the San Francisco delegation, and the tobacco juice were rattling over the rails at a merry clip when the second annoyance occurred.

"The '2:40' progress diminished to an ordinary galloping rate—the gallop became a pace—the pace a walk—and at last the train came to a perfect standstill, fairly in the woods, and out of sight of either human habitations or human beings—unless a scared coyote doing some 'tall walking' across the fields in the direction of his probable home could be considered as such. Of course, the passengers soon flocked from the cars round the quiescent beast of a locomotive, when it was discovered that one of the flues of the boiler having burned through, water ad infinitum was being discharged into the furnace, thereby extinguishing the fires, together with any undue hopes that might have been entertained of getting to Folsom within a reasonable time."

Luckily for the passengers, it was only a couple of miles to Salisbury's Inn and there they hastened, to partake of what the *Herald* scribe called "refreshments vinous and liquerish in their character."

The marooned excursionists did not have time to absorb refreshment to the point where they forgot the main object of the day. Mr. J. P. Robinson, the superintendent of the road, had been a passenger on the "Nevada." When the train halted so unexpectedly, he ran on ahead to the Inn where he commandeered a horse, and pressed on to Folsom and the surviving locomotive. This he brought back to the assistance of its disabled mate and the stranded tourists, feeling slightly exhilarated by this time, were collected and persuaded back on the cars, the train reaching Folsom without further incident.

The delay to the second train completely upset the formal program of celebration that had been arranged, for by the time the "Sacramen-

to" puffed into Folsom with its second load, it was far past the hour set for departure back to the city. An impromptu meeting was organized on the station platform, and a "cold collation with champagne" served. Then, in spite of the lateness of the hour, the crowning glory of the day, the orators, began. Was there ever a period that revelled so much in public speaking as the decade preceding the Civil War? Senator Flint was called on first and, mounting a chair, told the assembled multitude that they were witnessing the inauguration of a railway that would soon grow to the point where it would span the continent and embrace two oceans. "It is six years since I visited this spot. A pack mule or two was then sufficient for the entire carrying wants of the region. They wound their devious way over steep mountain sides into dark canyons and away into the trackless and barren wilderness where, as by the wand of the magician, is being now upreared the powerful though peaceful metropolis. Then toiled on afoot the lonely miner, armed to the teeth and delving for glittering gold or struggling with the painted savage for empire. Today how different! The Iron Horse, that mightiest triumph of human art, pants along the metallic way, tireless and uncurbed in his strength, and impatient to dare the far-off." California was observing the best traditions of contemporary eloquence.

Several other speakers, including Captain Sherman, were listened to, and then the crowd was invited to board the train which had to return to Sacramento to bring out another contingent for the Grand Ball. Many of the excursionists decided to stay over and observe the evening festivities, and whiled away the intervening hours looking over the growing town of Folsom. They saw a vastly different place from the Negro Bar of a few months before. Where there had been scarcely a cabin, were now houses in every stage of construction. Every building was decorated with a large amount of lettering in Roman characters of gigantic proportions and a variety of shadings, to the effect that pies and cakes were sold, novels rented, horses shod, and the like. Flags waved from every housetop. A "very handsome and tasty hall" had been erected for the ball and decorated with a profusion of evergreens. At nine o'clock, the evening train laden with ladies and their gallants, came to a halt at the new station, drawn by the faithful "Sacramento." The "fair freight," as the *Union* reporter called the flappers of the fifties, were transported by barouches and omnibuses to the Meredith Hotel, and at ten o'clock the ball began.

A word about the "light fantastic" of seventy-five years ago. Not the jazz intoxicated, black orchestra of today, before which scantily clad maidens syncopate in the arms of suave, black-coated youths. A more vigorous, wholesome affair was the dancing in early California. The entire population seemed to be possessed with a zest for the dance, and everything from the quadrille to the intricate Spanish tango was indulged in. Strapping, six-foot-six mountaineers balanced diminutive, hoopskirted bits of femininity; while backsiding deacons groped their way through the mazes of the Virginia Reel.

With this native enthusiasm for the dance and such an important event to be celebrated, the Railroad Ball was a magnificent success.

"The floor was covered with skipping belles and bounding swains" garbed in all varieties of dress, and giving the effect of a drygoods store turned upside down. Their enjoyment of the occasion can be judged from the fact that at one o'clock a train was announced for Sacramento but no passengers appeared. Not for four more hours did the tired merrymakers drag themselves up to the depot and board the still waiting train, where they were soon gossiping about the events of the evening or indulging in peaceful sleep.

"As the gray mists of morning betokened the new day, the locomotive came to a standstill at the Third Street Station and the crowd, some shivering in garbs as white as the hoar frost under their feet, and others in thick vest, white kids, and sans overcoats rushed up that thoroughfare at the top of their speed to seek their several couches and abandon themselves to the embraces of the drowsy god."

The Sacramento Valley Railroad was now formally launched on the seas of commerce. The future looked fairly bright in spite of the fact that the road was heavily in debt, as the cost had exceeded the estimates by about fifty percent. Plans for immediate extension to the north and east were discussed. Practically all of the freight traffic to the mines was diverted to the railroad, much to the disgust of the teamsters. This may have had something to do with the burning by incendiaries of four loaded freight cars. The passenger business picked up surprisingly also, "riding on the railroad" becoming one of the chief sports of the day. A cosmopolitan clientele was carried. One passenger speaks of Chilenos, Mexicans, Chinese, and Digger Indians all familiarly nodding at each other in what seemed to be a new era in politeness but which was only an effect of the roughness of the road.

Opinions on ventilation were just as apt to disagree in the fifties as they have ever since. An old stager taking a sight-seeing trip to Folsom, raised the window to inhale the fragrant California atmosphere. "Isn't the air balmy?" he said to the traveller who shared his seat. "Very!" said the other, who buttoned up his coat and moved across the aisle. This same old stager shared the gift for poetic description common among the reporters of the day. Here is a bit from his account of the trip:

"And glorious indeed was the view! Emerging from the woodland, the prairie rolls before you for miles along the valley with myriads of flowers, while away on the eastern horizon looms up the Sierras whose snowy crests defy Old Sol's fieriest rays. Here and there one catches glimpses of the iron way and the engine screaming and tearing along like an infuriated devil, and anon the eye follows down the watercourses fringed with their belts of deepest green, and still again rests on the clear blue Coast Range skirting the western borders of the valley. Reader, go to Folsom! Commune with nature and be happy."

These exuberant phrases contain an unintentioned irony to the modern reader who reflects that Folsom is now the site of the State Penitentiary.

In 1860, the Railroad issued a report covering the results of five years operation. We learn that although profits had been considerable, they had been largely dissipated in meeting the high rate of interest

on the bonds. Certain refinancing had been managed, however, and the stockholders were advised that although they were doubtless disappointed in their original expectations, they were now to be congratulated on the prospects of great success thereafter. It was hoped that two or three connecting railroads were about to be built and more wagon roads were being constructed in the mountains.

A safety record had been made that was somewhat unusual for the fifties. 391,000 passengers had been transported and none had met with the slightest injury. Damaged and lost freight had amounted to less than \$1,000. The report ended with miscellaneous statistics, some of which have a quaint sound to modern ears. Passenger trains had averaged 34 miles to the cord of wood; freight trains 26. Of the four locomotives, the "C. K. Garrison" had the best record for economy, averaging 36 miles per cord of wood, 166 miles per gallon of oil, 48 miles per thousand gallons of water, and 185 miles per pound of waste. The general superintendent received a salary of \$5000 a year; conductors and engineers \$150 a month. These figures sound low to us now, but they would have seemed princely at that time anywhere except in California. The president of the Baltimore and Ohio was then receiving \$3000 a year, and his conductors made both ends meet on \$62.50 a month. Except for a suit before the Supreme Court concerning the alleged destruction of a horse, the company was free from litigation.

On Washington's Birthday, 1863, exactly seven years after the formal opening of the Sacramento Valley Railroad, ground was broken for another railway venture that was destined to grow to an undreamed-of stature and to absorb its older brother. The Central Pacific Railroad, championed by the same Theodore D. Judah who had built the Valley line became an actuality. From then on, the days of independence of the pioneer road were numbered.

This, of course, was not instantly apparent. A large proportion of the population believed the completion of the Central Pacific to be an utter impossibility, and questioned whether its promoters were actual swindlers or just misguided fools. The Valley line was prosperous, having declared a dividend of \$500,000 in 1864, and believed that if there were to be a railroad across the Sierras, it should be used as a link. Its officers made much of the fact that it had never received a penny of government aid, the Central Pacific's chief means of financing. The Sacramento, Placer & Nevada Railroad, one of the connecting roads mentioned in the five year report, had been opened from Folsom to Auburn, in 1862, and as the Central Pacific was to pass through Auburn, it seemed to the owners of the Valley line that these existing roads should be utilized as a part of the transcontinental route instead of being duplicated with new construction. This the Central Pacific found itself unable to do because of various provisions of the Pacific Railroad Bill, and the S. P. & N. was torn up after a short two years of service.

Another hope of the Valley road lay in the Placerville and Sacramento Railroad. This line was financed in large part by El Dorado County in the expectation that it would make Placerville the western depot for the Nevada mining trade, and would later build across the

Sierras. The progress of this road east from Folsom was marked by the familiar excursions, cold collations, and speeches. It was completed to Shingle Springs, twenty-seven miles from Folsom, in June, 1865, and there it stopped. Congressional aid had been granted on condition that the road reach Virginia City, Nevada by 1866. Support, both moral and financial, was asked of the new-born state of Nevada with the plea that the promoters of the route had nature and God on their side and were bound to win. Like others who have assured themselves of the same support, they were overconfident. The project fell through, the Congressional grants were restored to the public domain, and El Dorado County was almost ruined by high taxes due to the uncompleted road.

The Sacramento Valley Railroad had come to the end of its rope as far as hopes for an important future were concerned, and its local traffic was rapidly diminishing due to the waning of the mines. Its officers realized the situation. On August 16, 1865, the controlling interest was sold to Mr. George F. Bragg, an agent of the Central Pacific, for \$800,000, and the independent existence of California's first railroad was terminated.

The stretch of track that comprised the Sacramento Valley Railroad is today a portion of the Placerville branch of the Southern Pacific Lines, a system of over 15,000 miles. The twenty-two miles that loomed so large in 1856 would now never be missed. But the Valley road rendered a distinct service in addition to its direct influence on the history of the days of gold, a service to the mighty giant that has absorbed it, a service to California, and a service to the Nation. When Theodore D. Judah came to California he saw the imperative need for the transcontinental railway, and gave unsparingly of his time, money, and energy toward awakening the community, discovering the most feasible route, obtaining Congressional sanction, and expediting the work. It is safe to say that without his enthusiasm, the Pacific Railway would have been delayed for many years. And that Judah was present where his destiny lay, we may thank the Sacramento Valley Railroad.

IN MEMORY OF
HIRAM E. WILLIAMS

140 East 5th Street
Springfield, Ohio
Who died on March 14, 1932

IN MEMORY OF
RICHARD ARNOLD FISHER

234 Boylston Street
Boston, Massachusetts
Who died on October 10, 1932

